Mathematics Ages 5 to 6

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Preface

After teaching High School for twenty two years, I decided to write books. I taught High School Mathematics, Additional Mathematics, Biology, Human and Social Biology, Physics, Integrated Science, Geography, SAT Mathematics, SAT Physics and MCAT Physics in the past and I am capable of teaching subjects in the Social Sciences and Business fields.

A few years ago, the new Elementary School Curriculum was introduced in my country and there was a sudden need for Mathematics books to reflect this. That was when I decided to get copies of the new Elementary School Curriculum and I started to write. The new Elementary School Curriculum is integrated in nature and because I have experience in teaching different subjects, I was able to integrate the lessons in this book.

This is the first in a series of seven books that will cover the new curriculum for year one to the final year leading up to examination. This book can be used globally, because the core content for Mathematics is the same internationally.

There are many activities designed for students regardless of their intelligence level. Many colorful diagrams, photos and illustrations are used in the book to attract the attention of students. I would encourage parents to print this book when it is downloaded and work through all the exercises with their children.

It is my intention to improve this book regularly so that Teachers, parents and students benefit fully.

If you are a Publisher and would like to get in contact with me to distribute paperback copies of this book globally, my e-mail address is kishwardass@hotmail.com.

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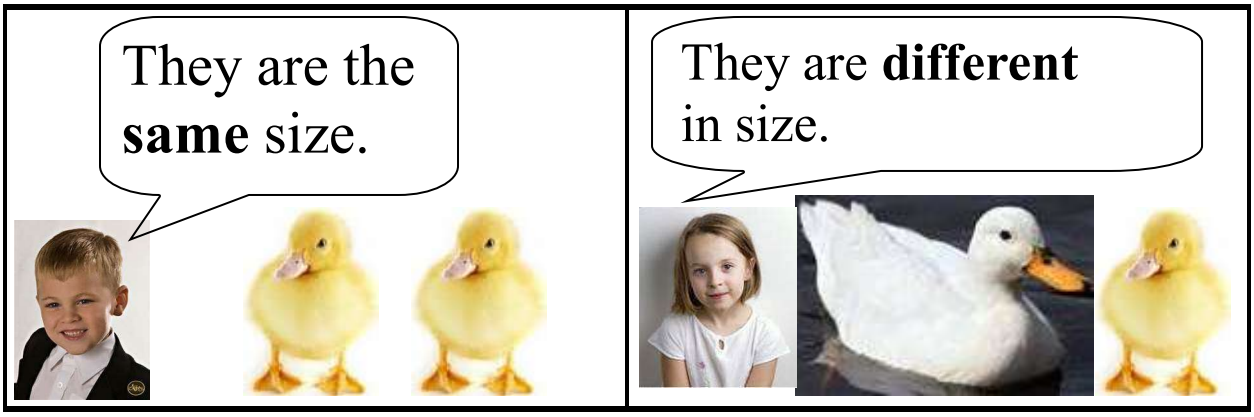
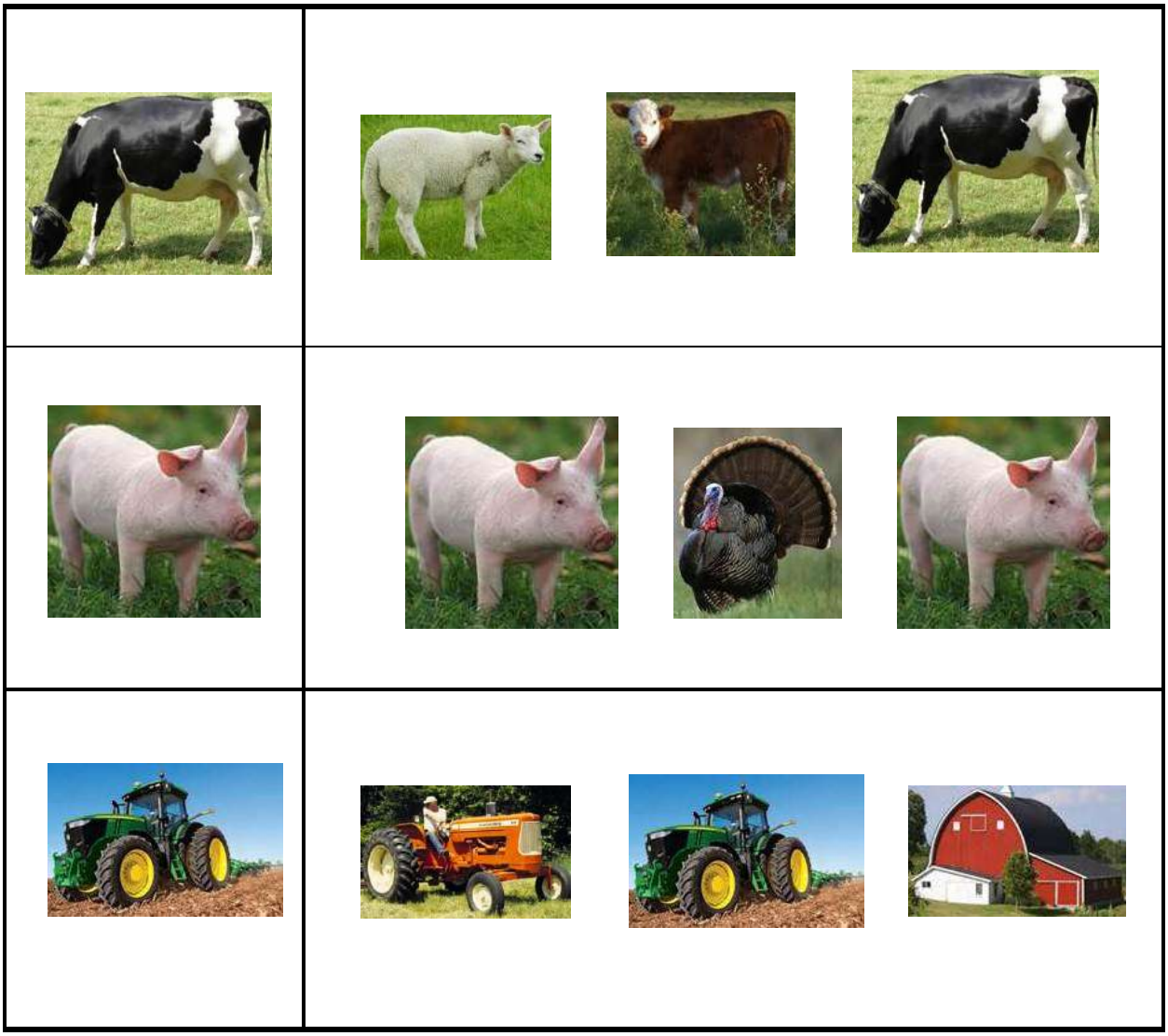
NUMBER
Pre-Number
Groups

Circle the **same** colour.

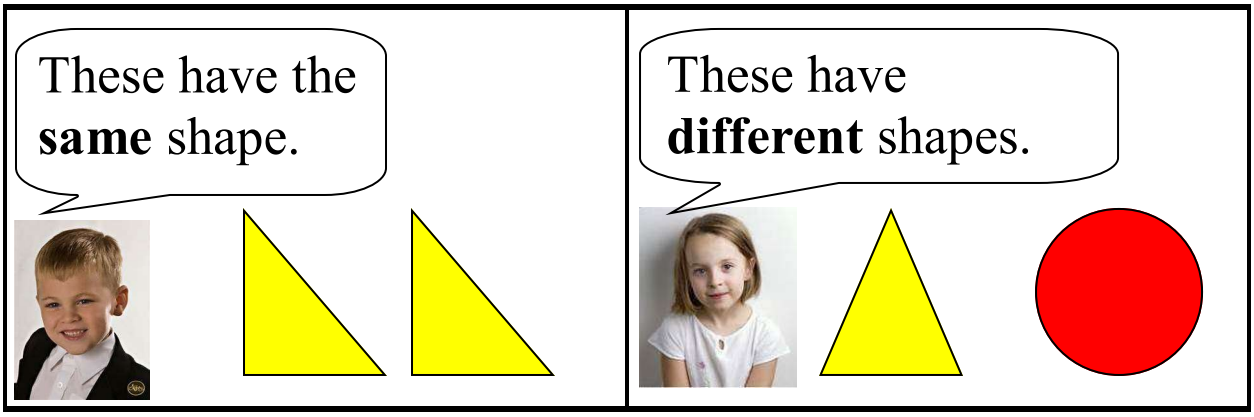
Same size



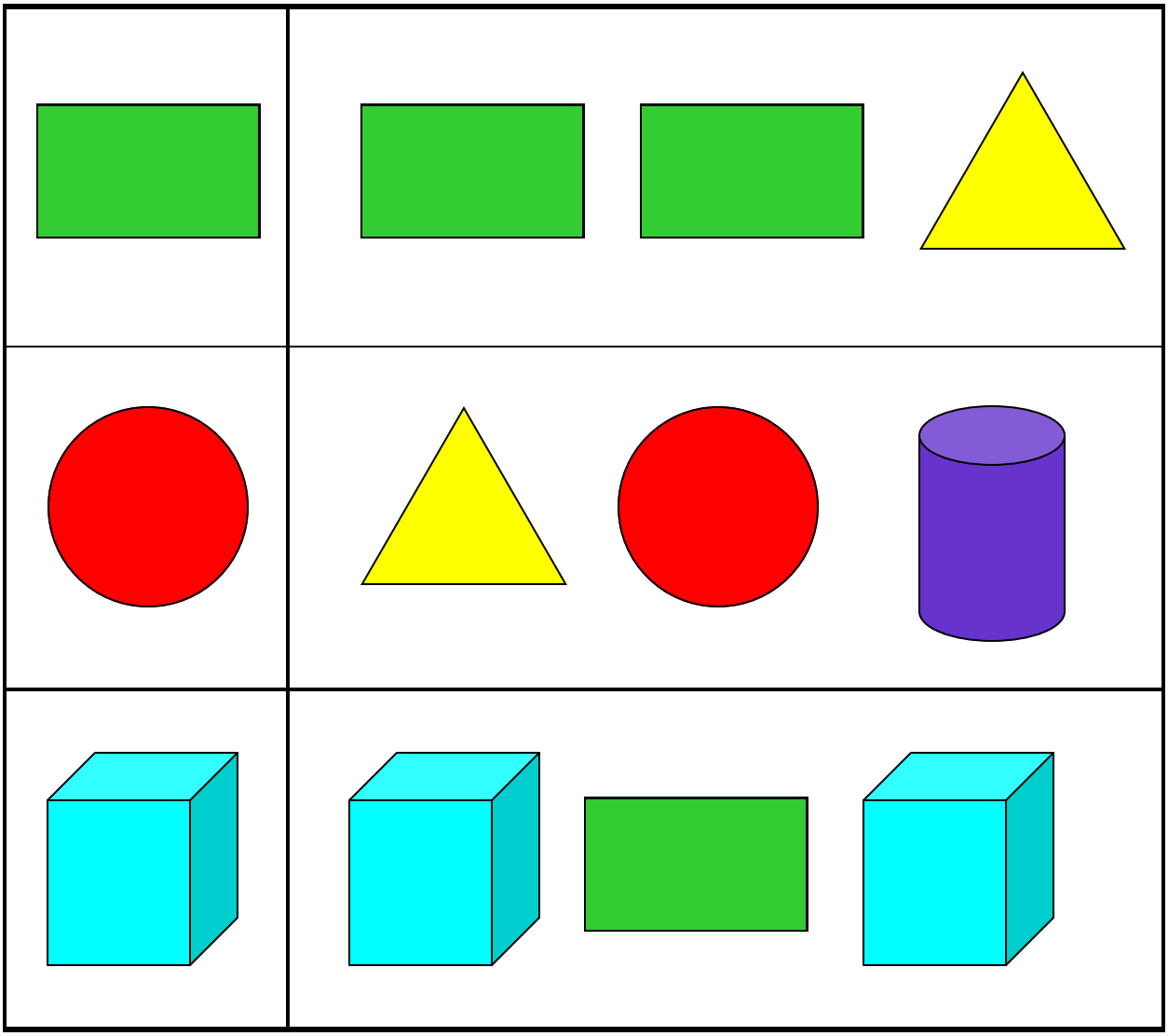
Circle the **same** size.



Same shape



Circle the same shape.



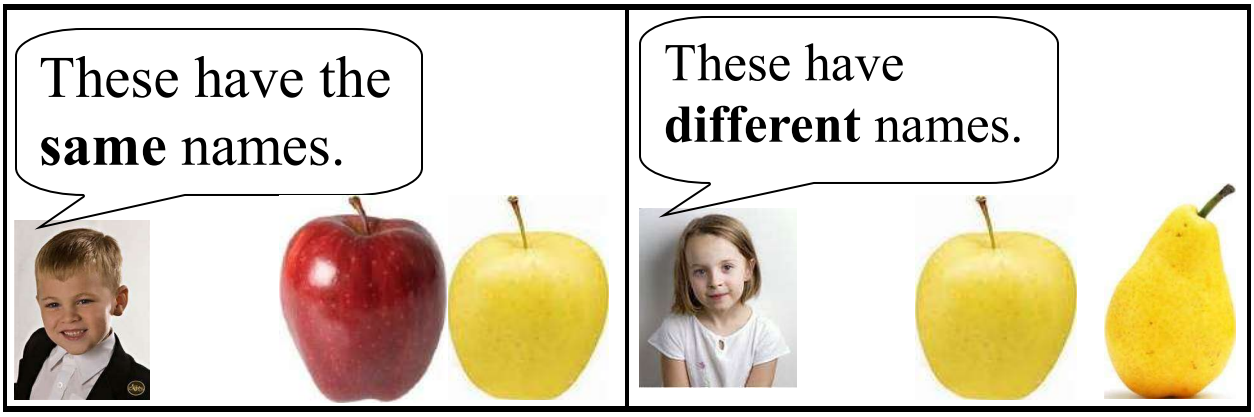
Same texture

These are **hard.**	These are **soft.**

Circle the **hard** or **soft** ones.

hard	
hard	
soft	

Same names

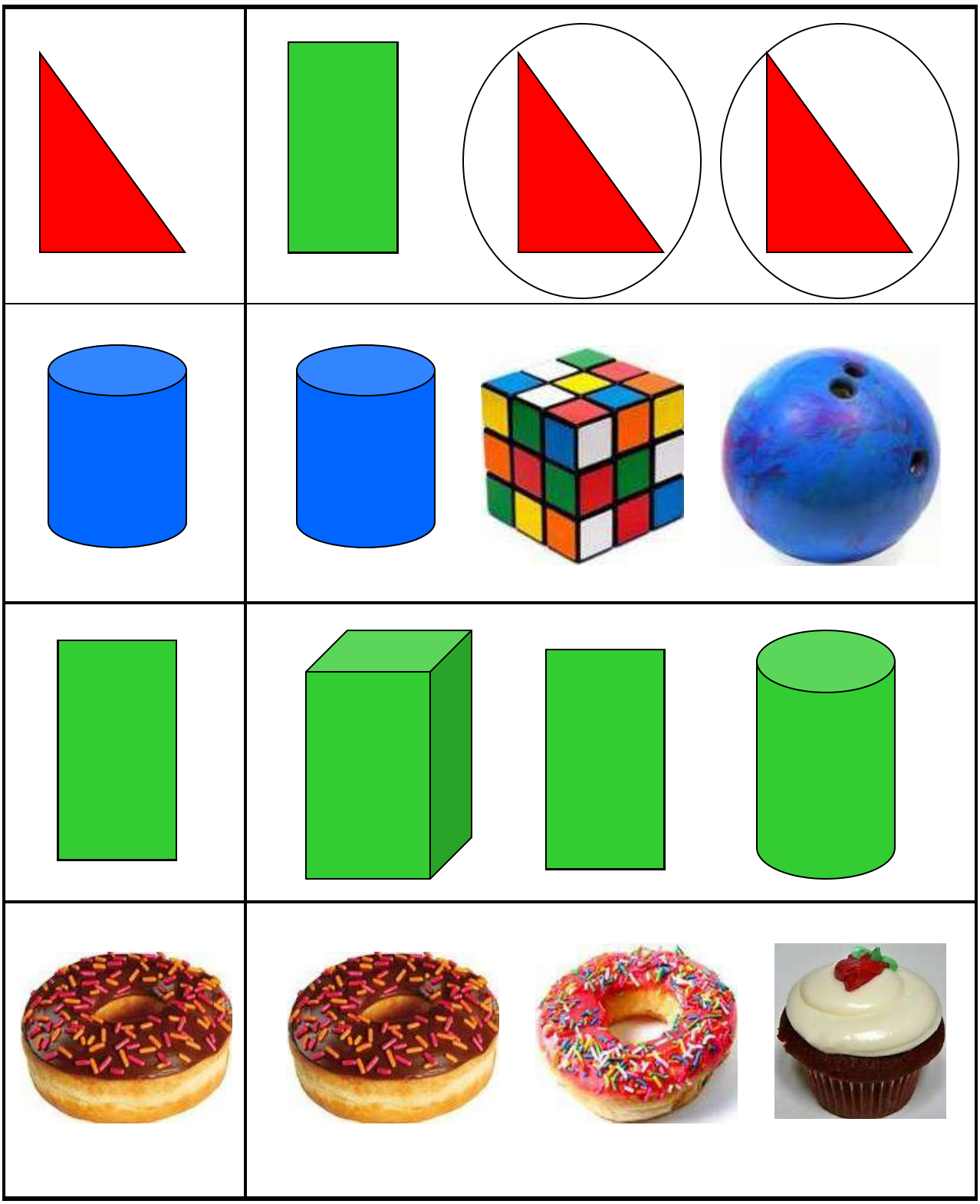


Circle the ones with the **same** names.

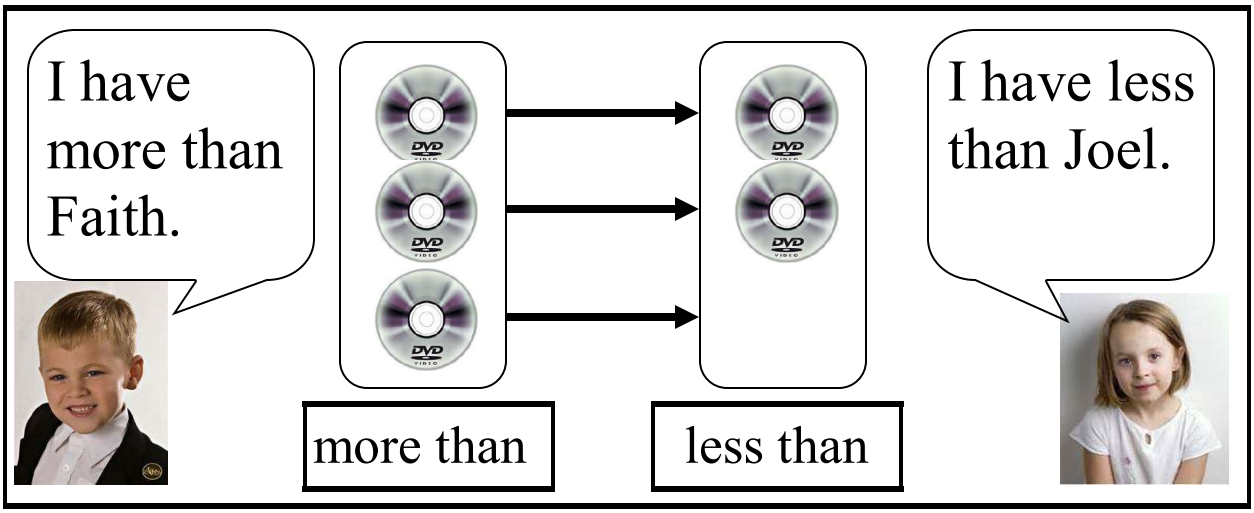
fruit	
ice cream	
donut	

Same shape with same colour

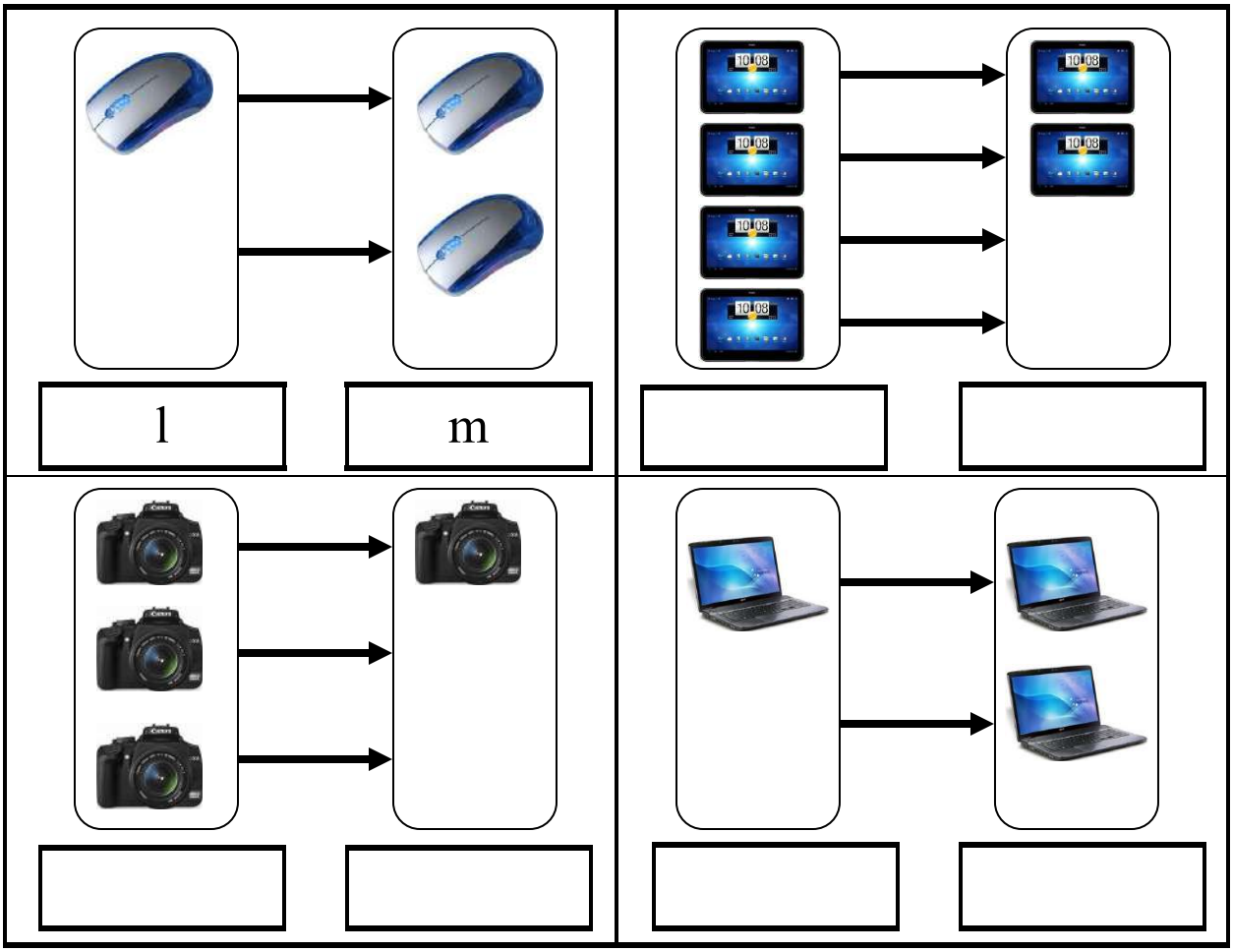
Circle the same shape which has the same colour



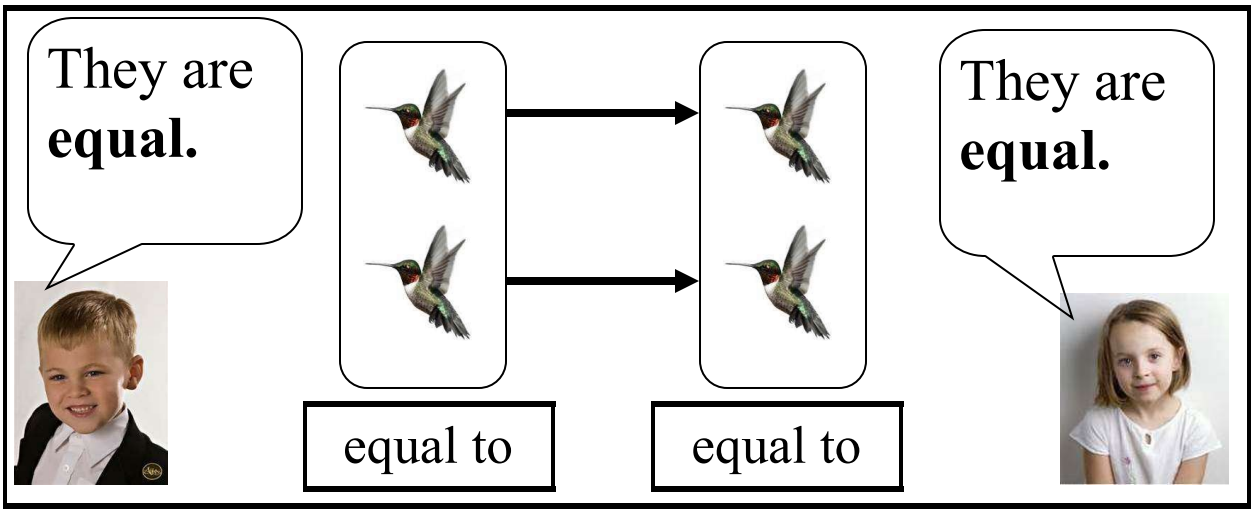
One to one correspondence: more than



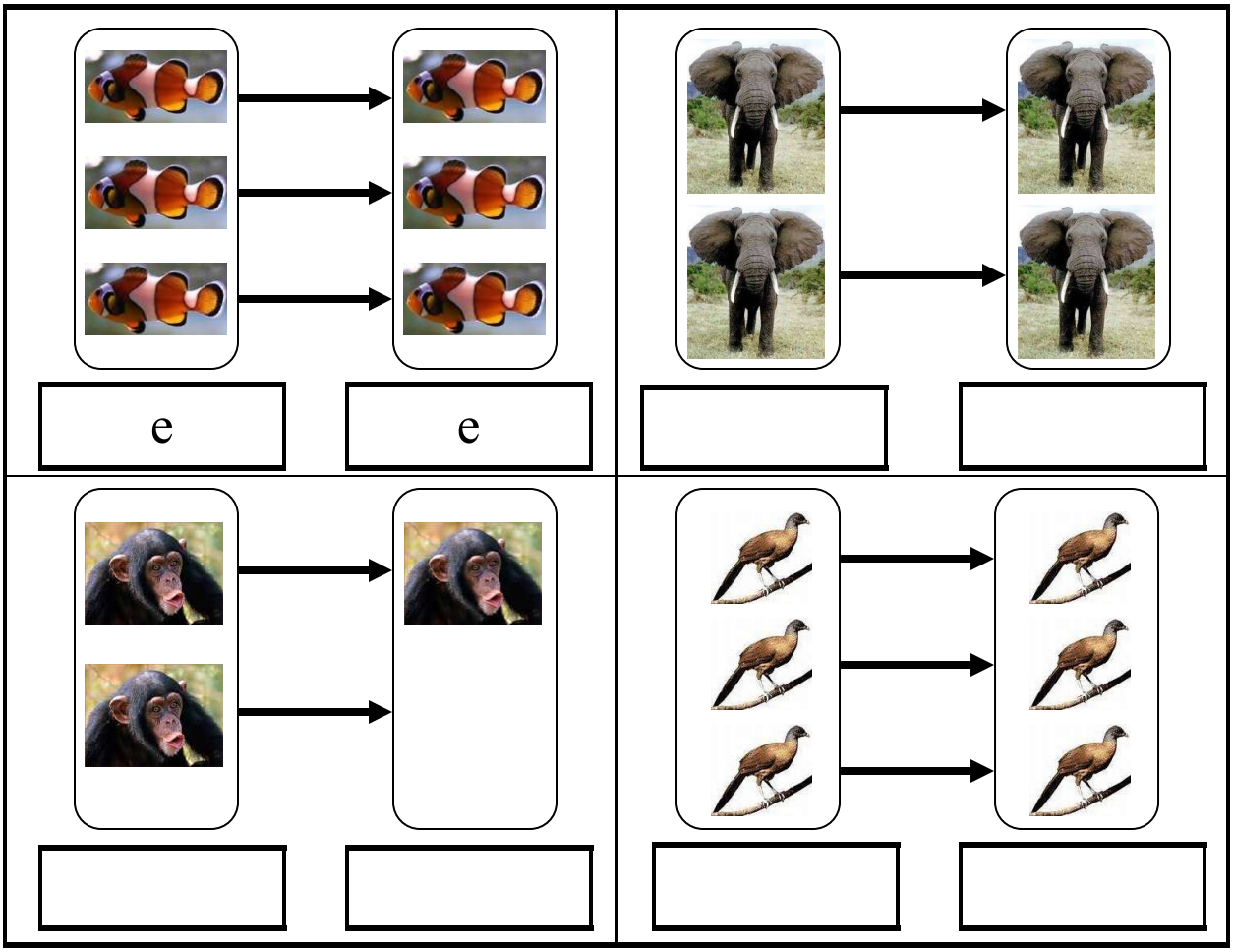
Write **m** for more than and **l** for less than.



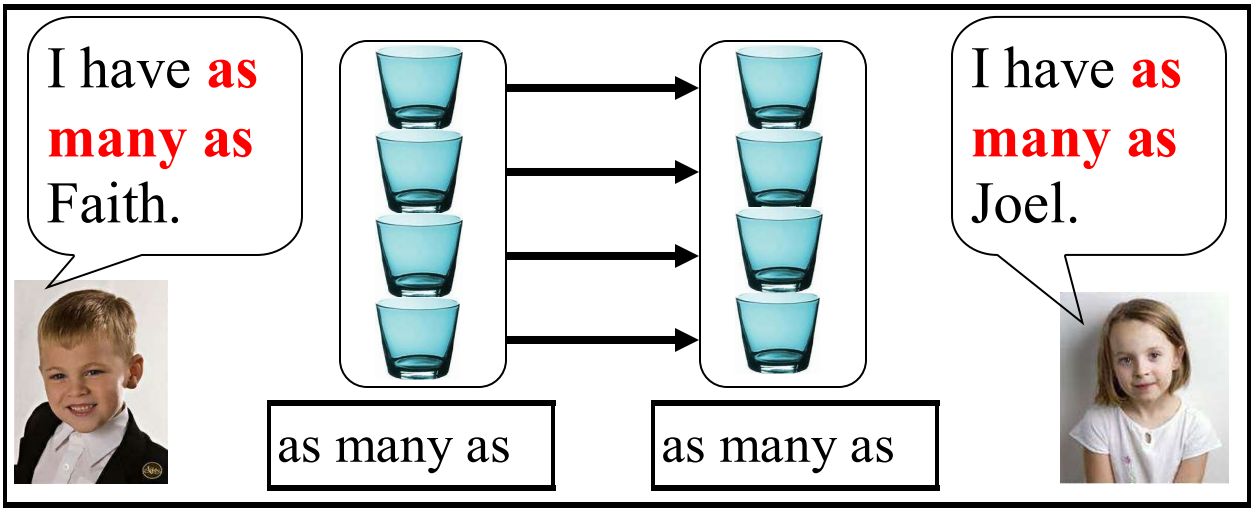
One to one correspondence: equal to



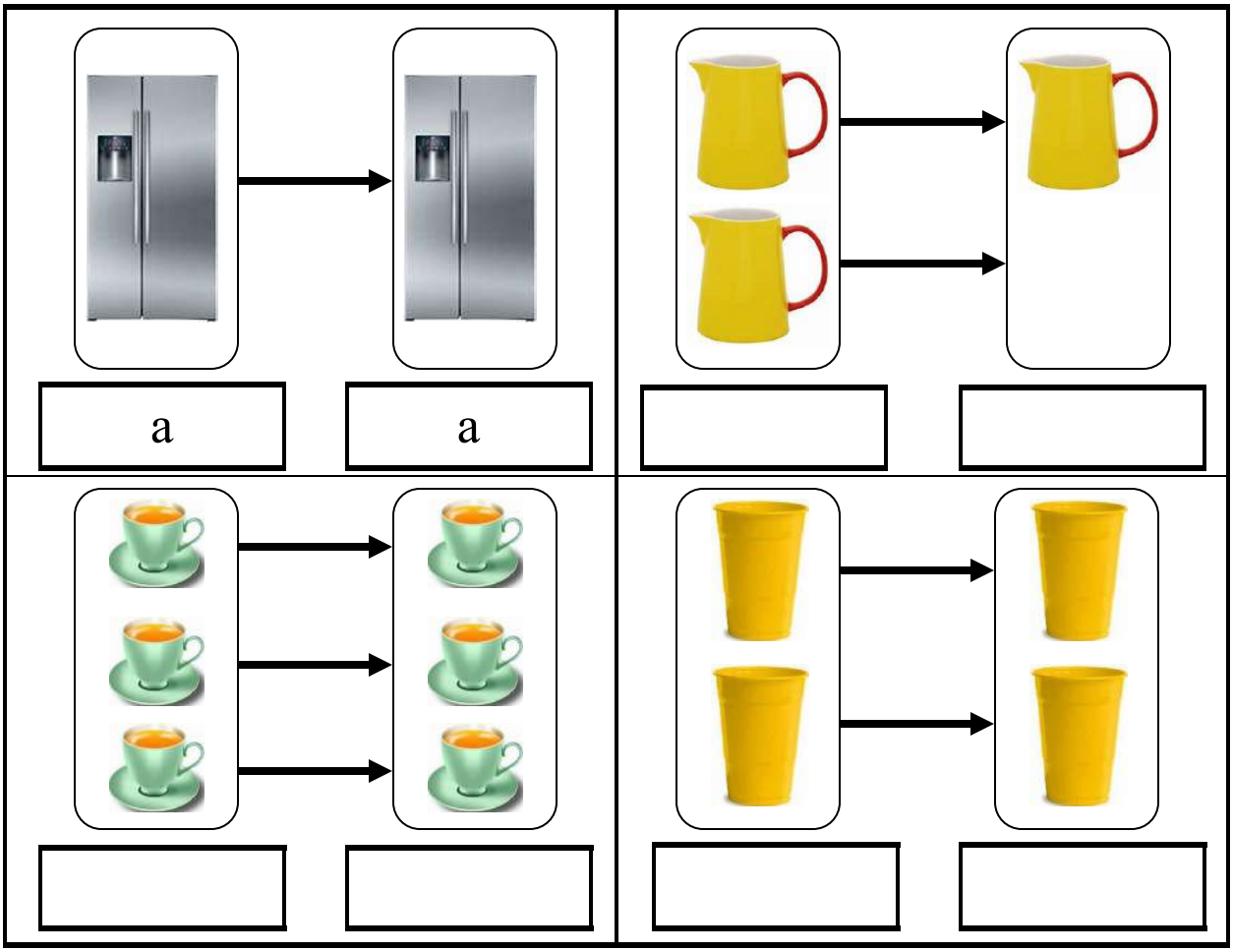
Write **e** for equal to and **n** for not equal to.



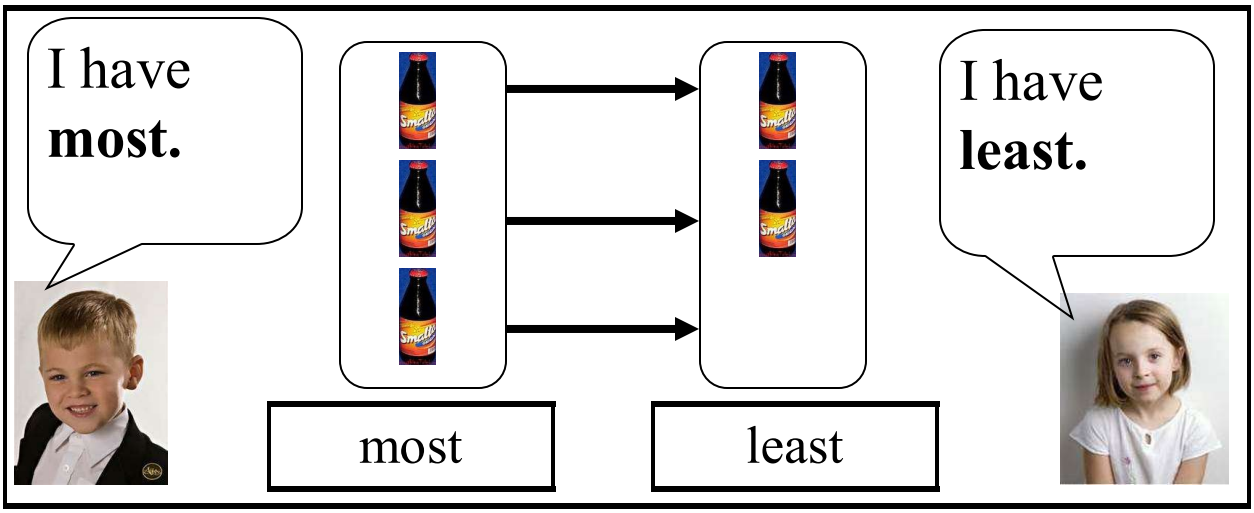
As many as means equal



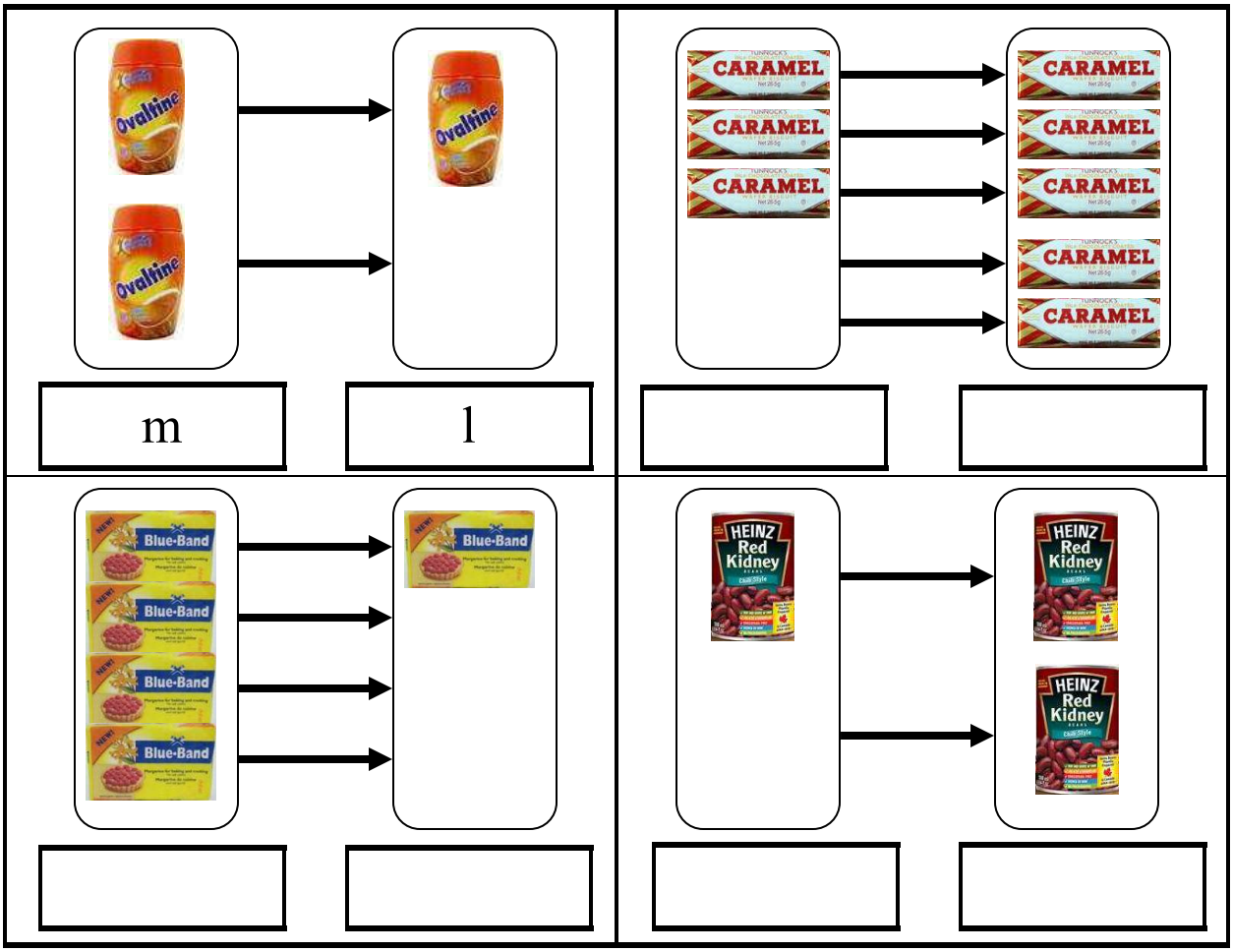
Write **a** next to as many as.



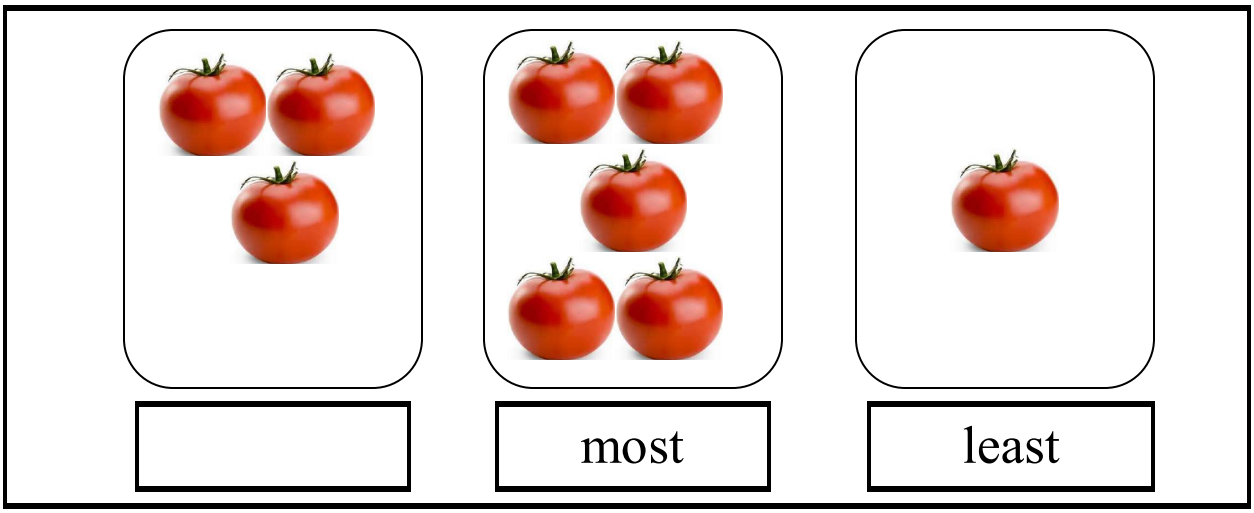
Most and least



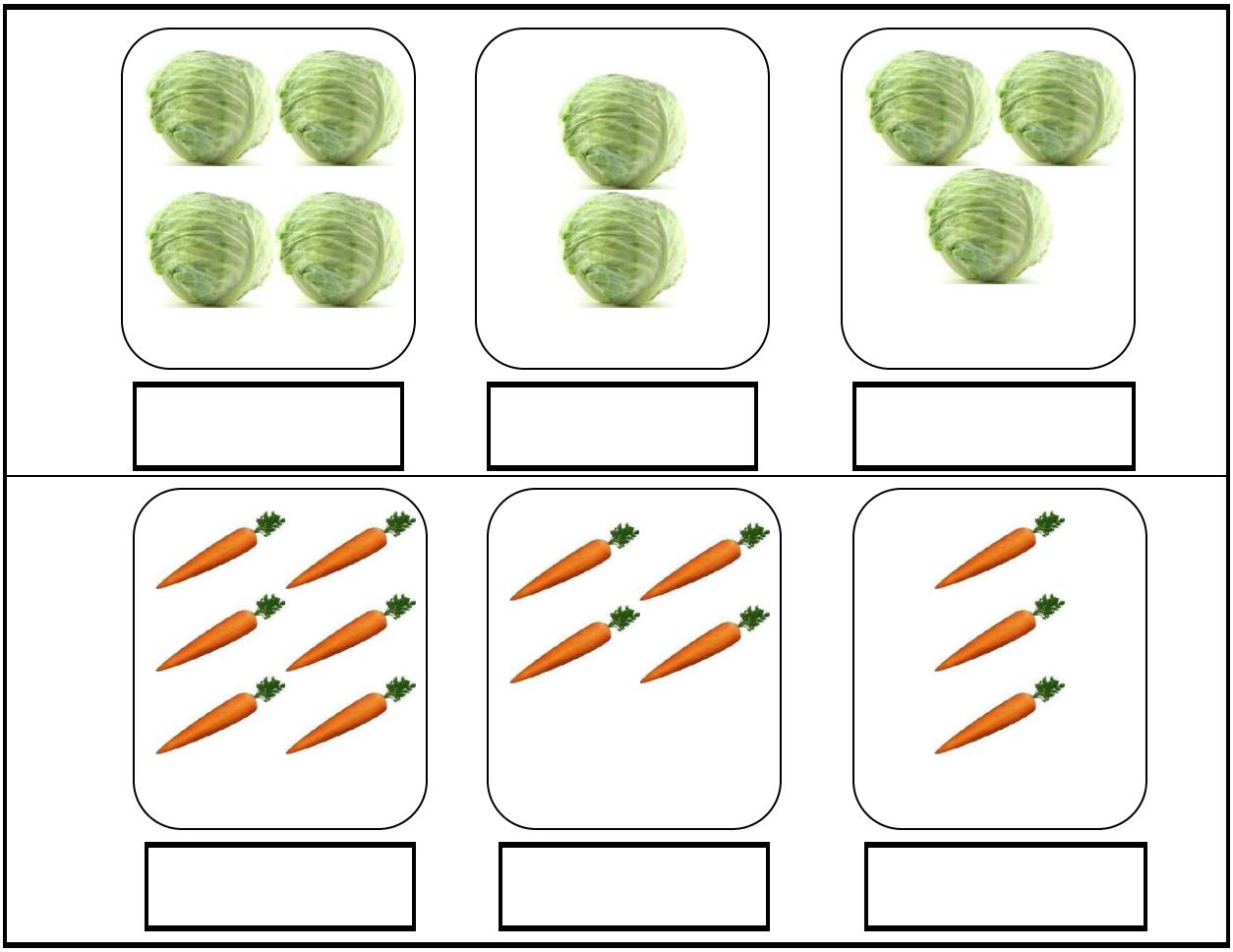
Write **m** for most and **l** for least.



Most and least



Write **m** next to most and **l** next to least.



Count to 20 in ascending order

ACTIVITY: The teacher will use flashcards to help the students count.

0	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20				

Count backwards from 20 to 0

ACTIVITY: The teacher will use flashcards to help the students count.

20	**19**	**18**	**17**	**16**
15	**14**	**13**	**12**	**11**
10	**9**	**8**	**7**	**6**
5	**4**	**3**	**2**	**1**
0				

Counting on from a given number

Start from 10 and count on to 20.
ACTIVITY: The teacher will use flashcards to help the students count.

10	**11**	**12**	**13**	**14**
15	**16**	**17**	**18**	**19**
20				

Start from 5 and count on to 20.
ACTIVITY: The teacher will use flashcards to help the students count.

5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20				

Start from 13 and count on to 20.

13	14	15	16	17
18	19	20		

Start from 8 and count on to 20.

8	9	10	11	12
13	14	15	16	17
18	19	20		

Counting back from a given number

Start from 10 and count back to 0.
ACTIVITY: The teacher will use flashcards to help the students count.

10	**9**	**8**	**7**	**6**
5	**4**	**3**	**2**	**1**
0				

Start from 20 and count back to 5.
ACTIVITY: The teacher will use flashcards to help the students count.

20	**19**	**18**	**17**	**16**
15	**14**	**13**	**12**	**11**
10	**9**	**8**	**7**	**6**
5				

Start from 20 and count back to 10.
ACTIVITY: The teacher will use flashcards to help the students count.

20	**19**	**18**	**17**	**16**
15	**14**	**13**	**12**	**11**
10				

Start from 15 and count back to 0.
ACTIVITY: The teacher will use flashcards to help the students count.

15	**14**	**13**	**12**	**11**
10	**9**	**8**	**7**	**6**
5	**4**	**3**	**2**	**1**
0				

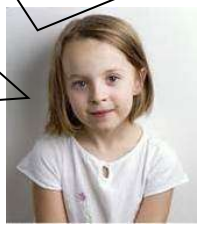
NUMBER CONCEPTS
0 Zero

I just ate my last

Now I have **none**. We say **zero**.

Mummy just used the last

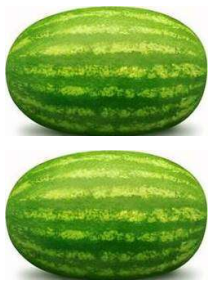
Now she has **none**. We say **zero**.



Trace and write.

0	0	0	0	0	0
0					
zero					

Write 0 next to the sets with zero.



1 one
Joel goes to School

1 family

Today is my first day in School

one family

Joel

Faith

daddy

mummy

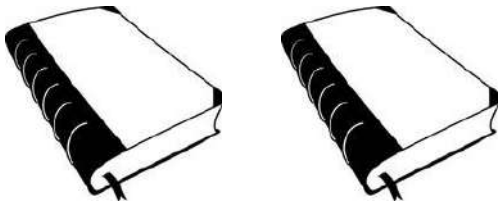
1 school one school

1 teacher one teacher

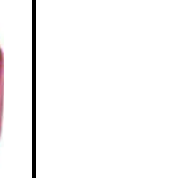
Trace and write.

1	1	1	1	1	1
1					
one					

Circle 1 object.



Circle the sets with 1.



Write one and 1.

one _____ 1

_____ ☐

_____ ☐

2 two

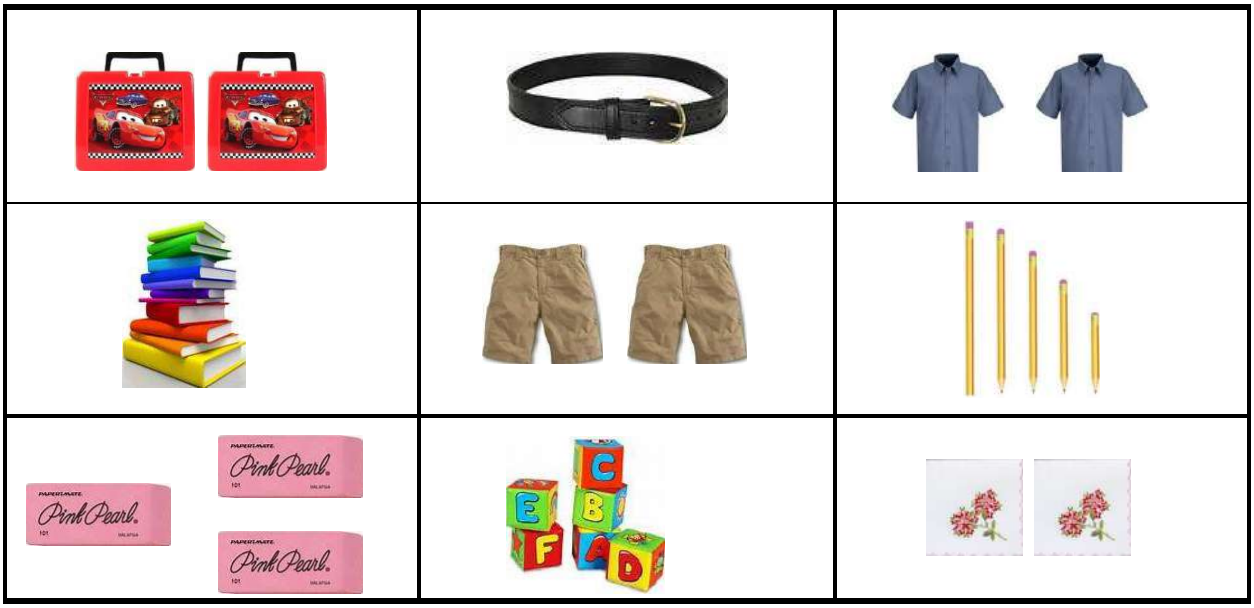
Joel and mummy go to the bookstore.

2 islands two islands	2 water taxis two water taxis
2 towers two towers	2 flags two flags

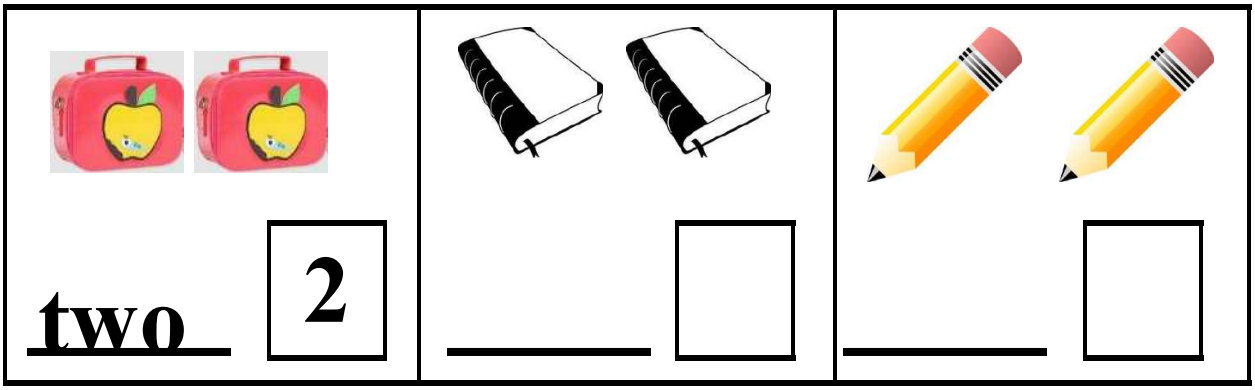
Trace and write.

2	2	2	2	2	2
2					
two					

Circle the sets with 2.

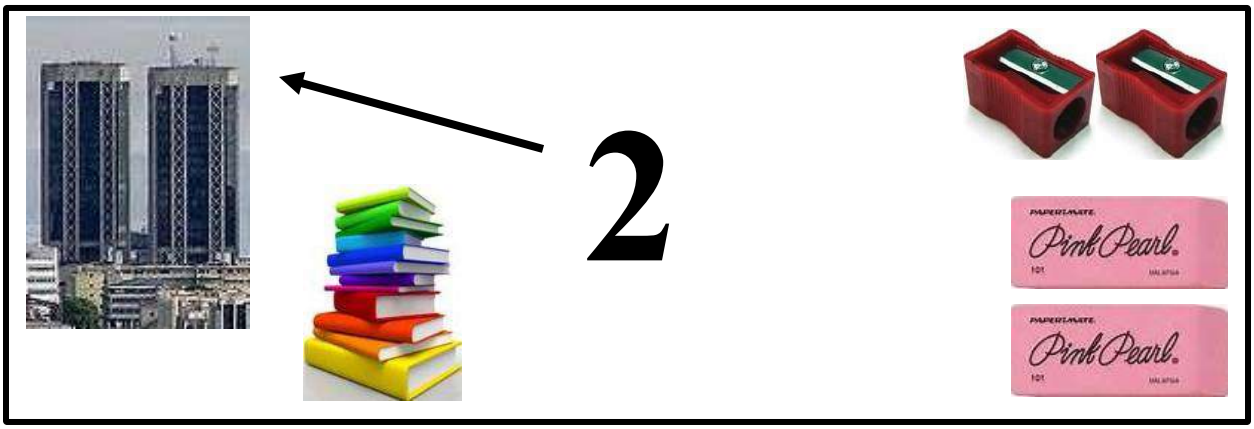


Write two and 2.



two **2**

Draw lines from 2 to the correct sets.



3 three

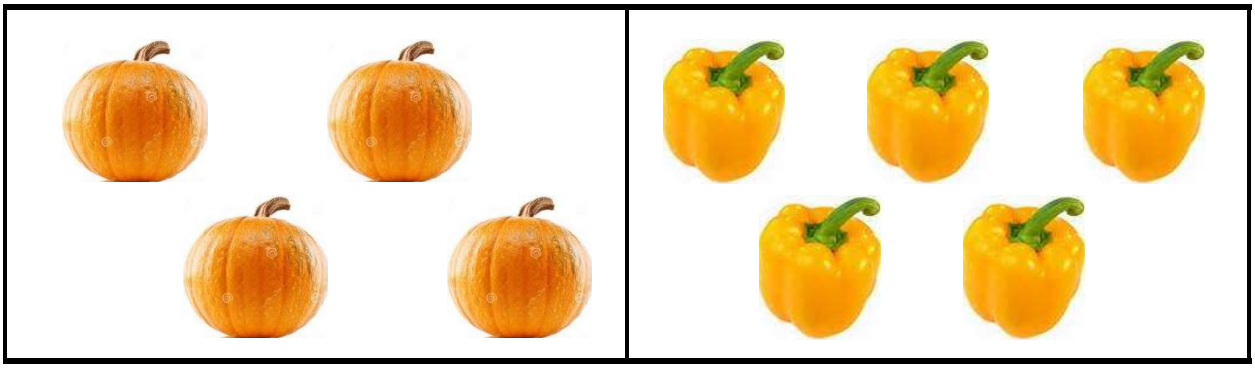
Joel and his class go to the garden at school.

3 tomatoes three tomatoes	3 carrots three carrots
3 bananas three bananas	3 cabbages three cabbages

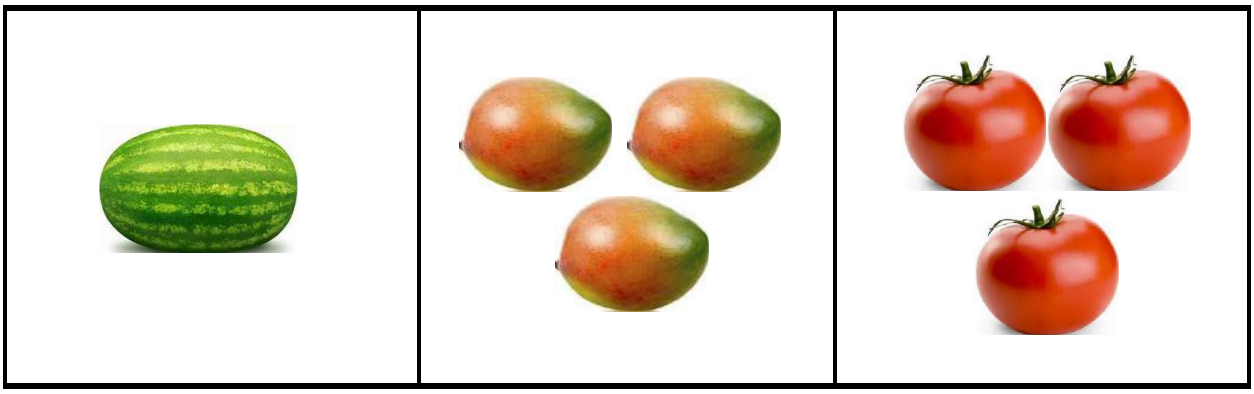
Trace and write.

3	3	3	3	3	3
3					
three					

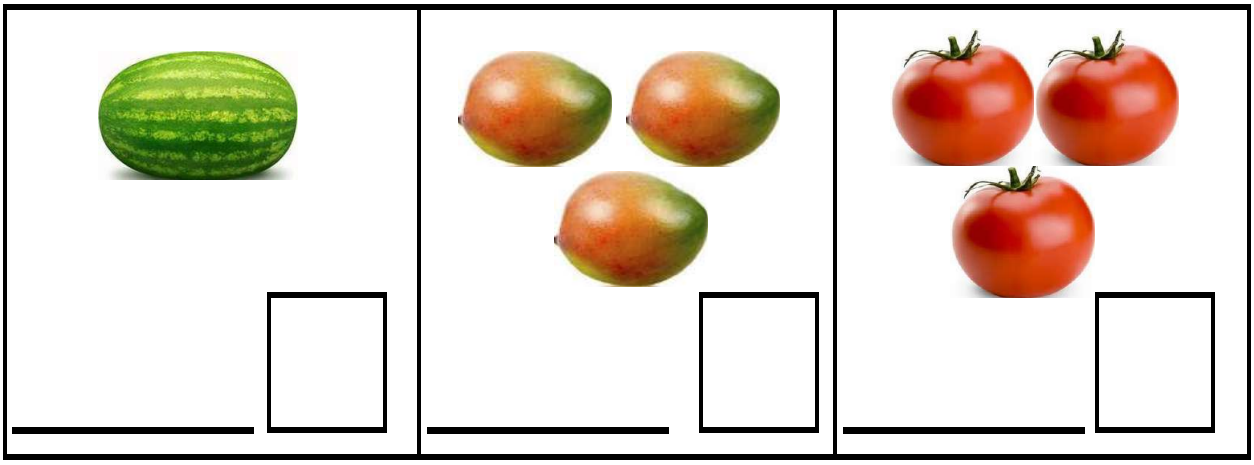
Circle 3 vegetables in each set.



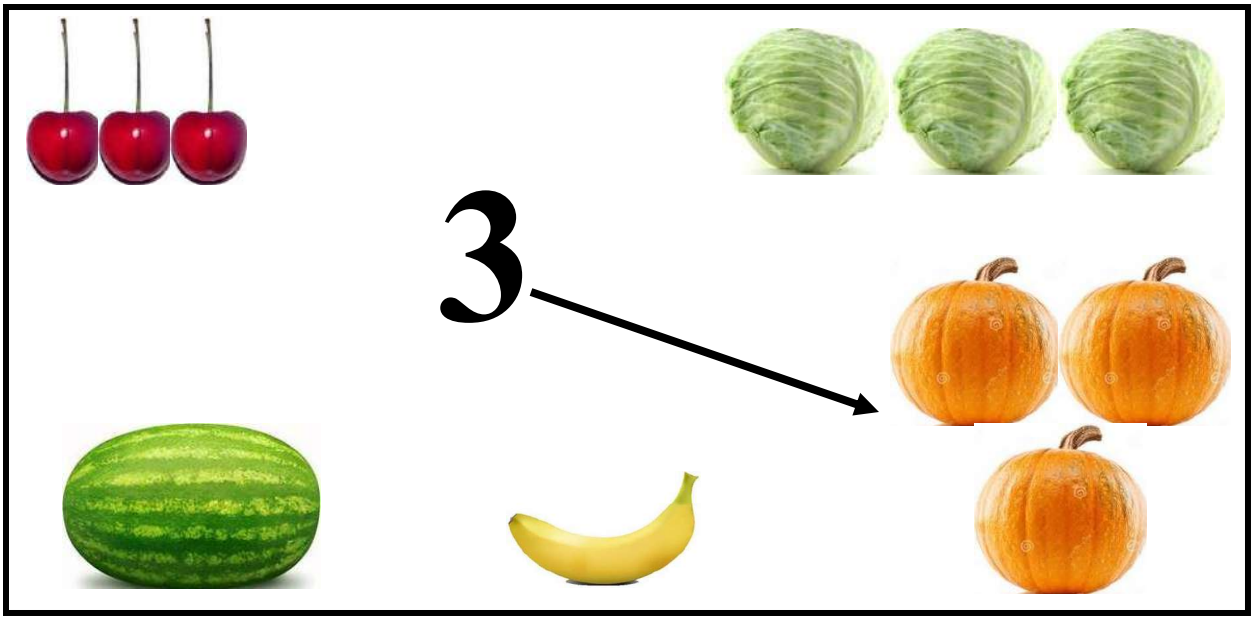
Circle the sets with 3.



Write three and 3 in the correct box.

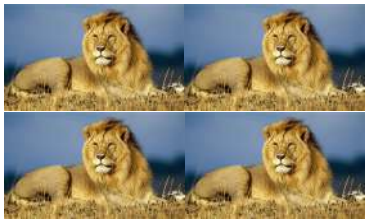
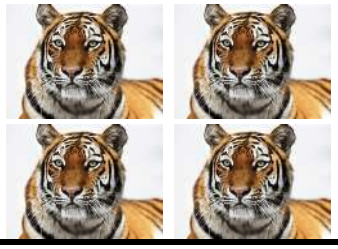


Draw lines from 3 to the correct sets.



4 four

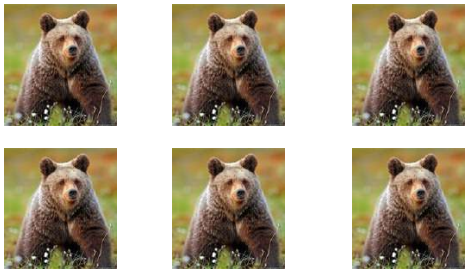
Joel and his family go to the zoo.

4 people four people	4 buses four buses
4 lions four lions 	4 tigers four tigers 

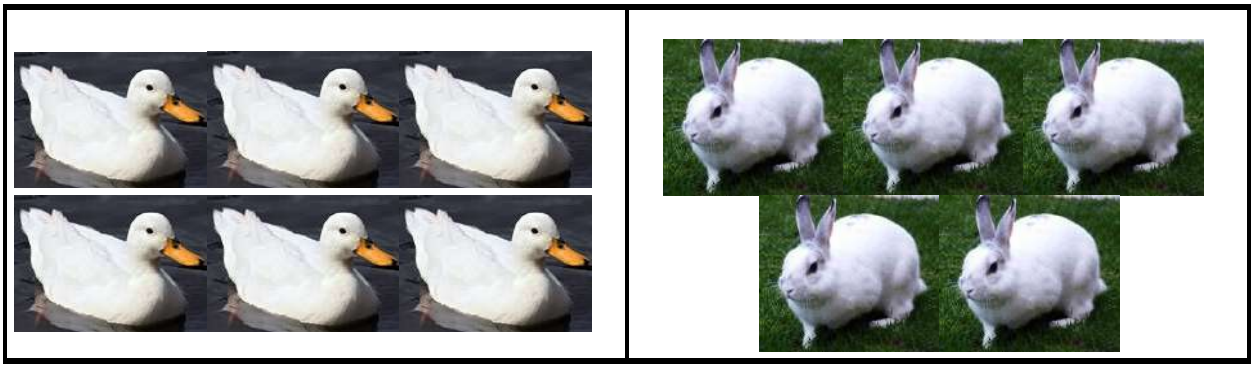
Trace and write.

4	4	4	4	4	4
4					
four					

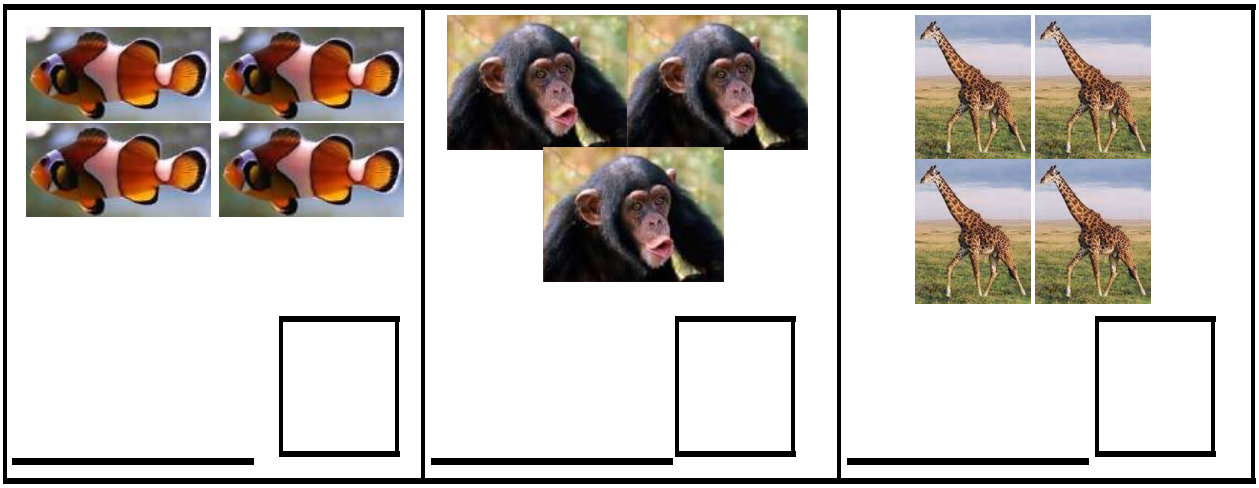
Circle 4 animals in each set.

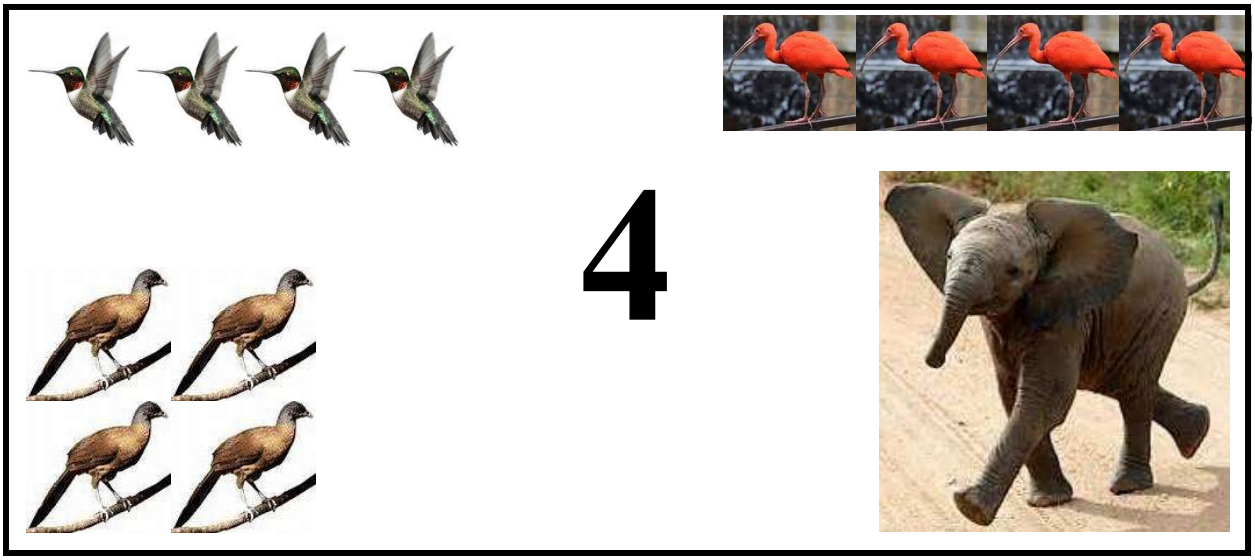
Colour 4 in each set.



Write four and 4 next to the correct sets.



Draw lines from 4 to the correct sets.



5 five

Happy birthday Joel.

5 years five years	5 friends five friends
5 presents five presents	5 donuts five donuts

Trace and write.

5	5	5	5	5	5
5					
five					

Circle 5 in each set.

Circle the sets with 5.

Draw lines from 5 to the correct sets.

6 six

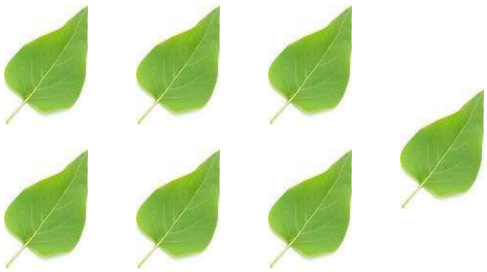
Joel and his daddy go to the flower shop.

6 roses six roses	6 plants six plants
6 petals six petals	6 tools six tools

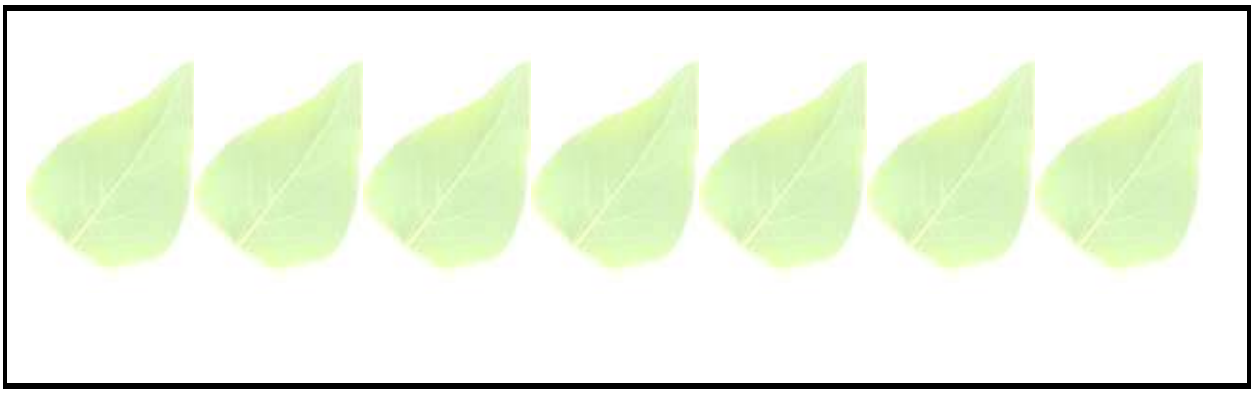
Trace and write.

6					
6					
six					

Circle 6 in each set.

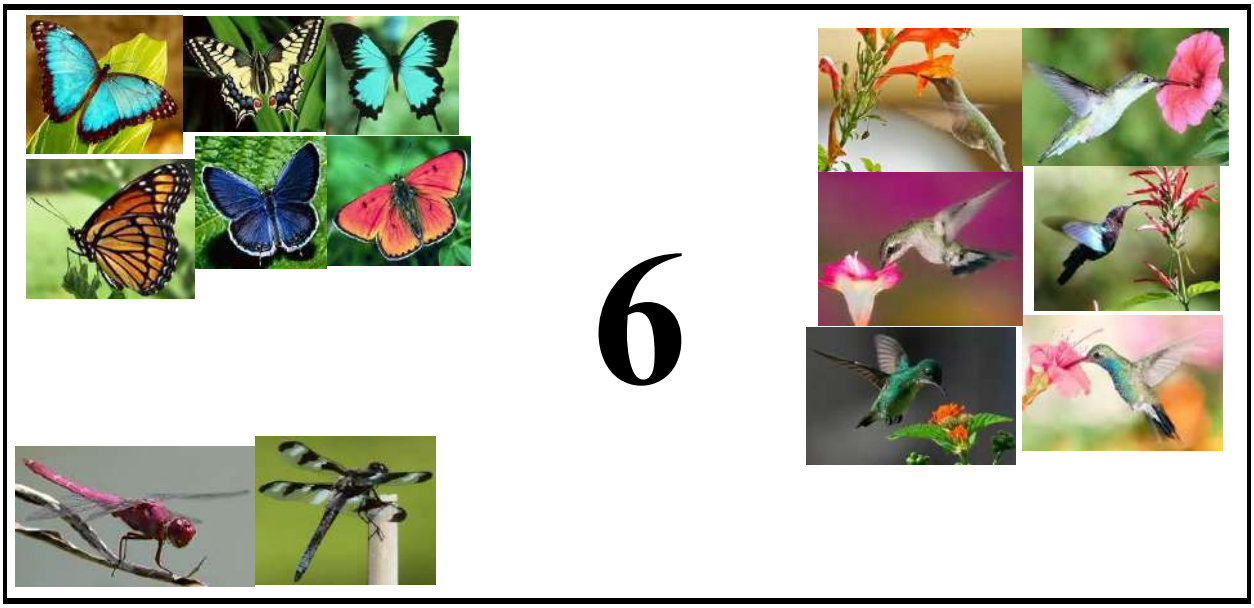
	

Colour 6 leaves.



Circle the set with 6.

Draw lines from 6 to the correct sets.



7 seven

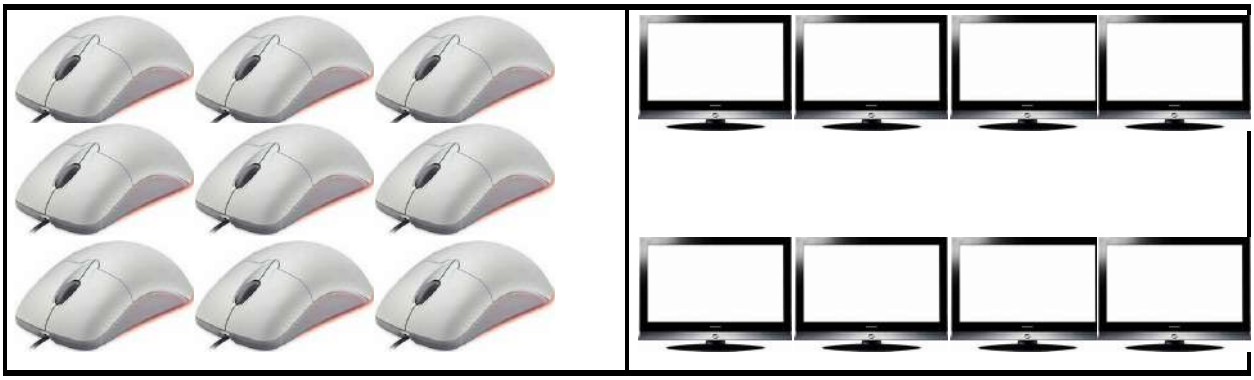
Joel, Faith and daddy go to the computer store.

7 laptops seven laptops	7 printers seven printers
7 mouse seven mouse	7 tablets seven tablets

Trace and write.

7	7	7	7	7	7
7					
seven					

Colour 7 in each set.



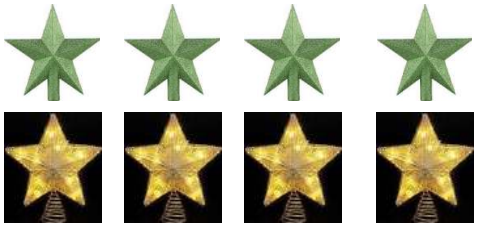
Write seven and 7 next to the correct set.

seven 7

Draw lines from 7 to the correct sets.

7

8 eight
Merry Christmas

8 reindeers eight reindeers	8 presents eight presents
8 elves eight elves	8 stars eight stars 

Trace and write.

8	8	8	8	8	8
8					
eight					

Circle 8 objects.

Write eight and 8 next to the correct sets.

eight

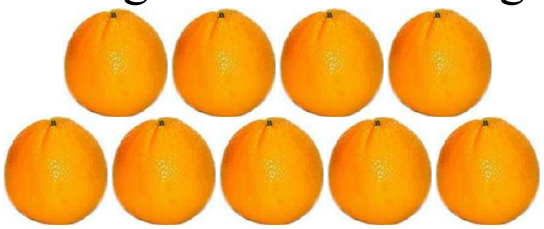
8

Draw lines from 8 to the correct sets.

8

9 nine

Joel, Faith, mummy and daddy go to the grocery.

9 baskets nine baskets	9 trolleys nine trolleys
9 bags of sugar nine bags of sugar	9 oranges nine oranges 

Trace and write.

9	9	9	9	9	9
9					
nine					

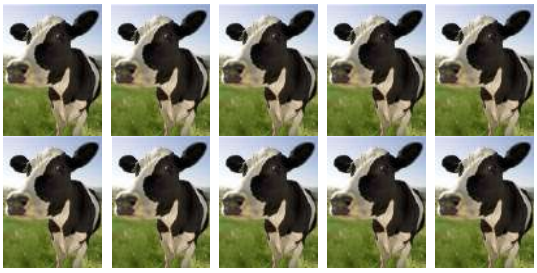
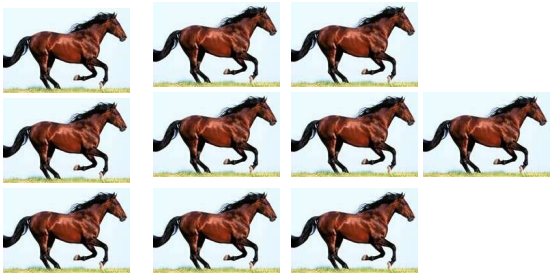
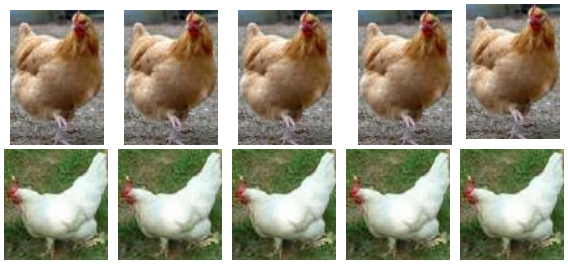
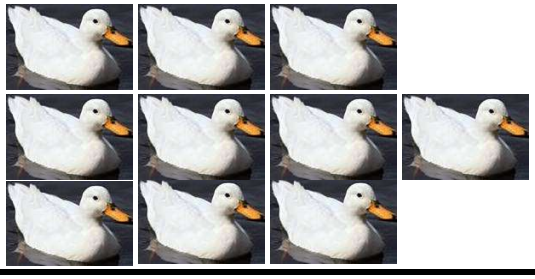
Help mummy get 9 smaltas. Circle 9 smaltas.

Circle 9 items in each group for mummy.

Draw lines from 9 to the correct sets.

10 ten

Joel's grandfather has a farm.

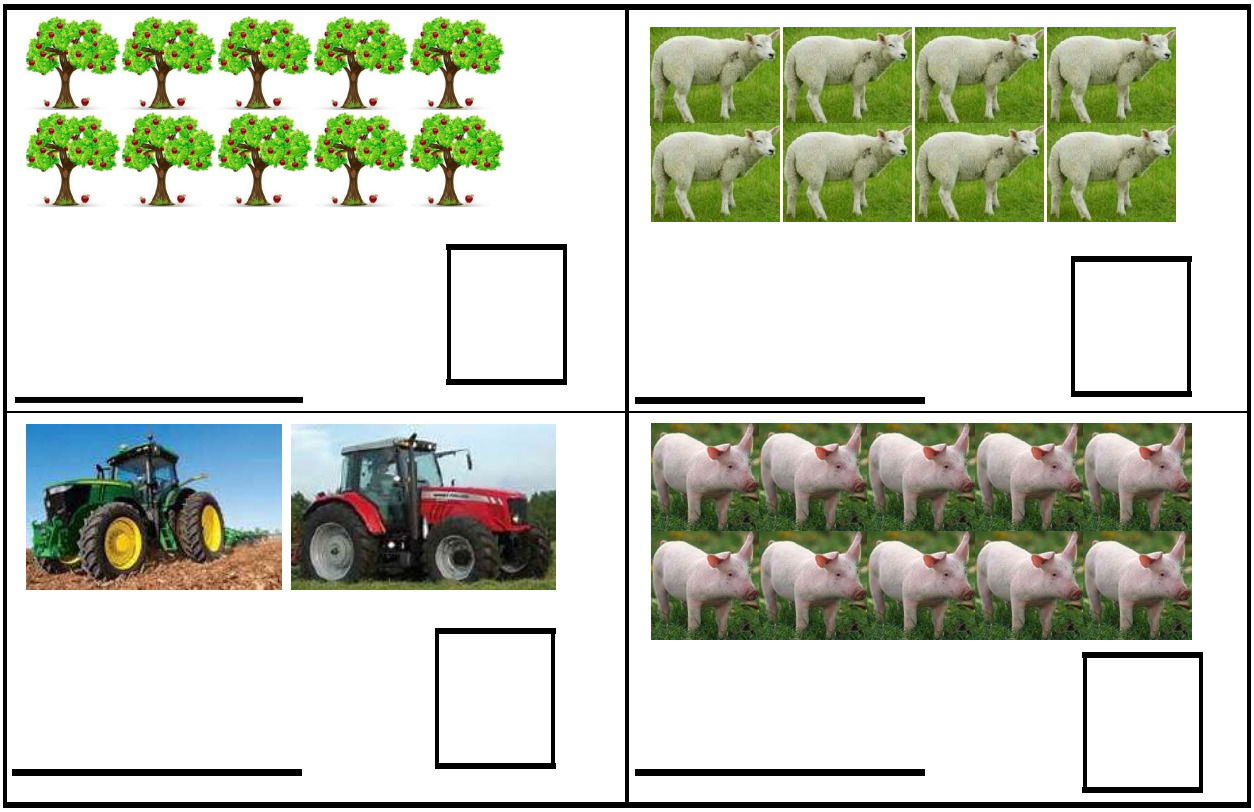
10 cows ten cows 	10 horses ten horses 
10 chickens ten chickens 	10 ducks ten ducks 

Trace and write.

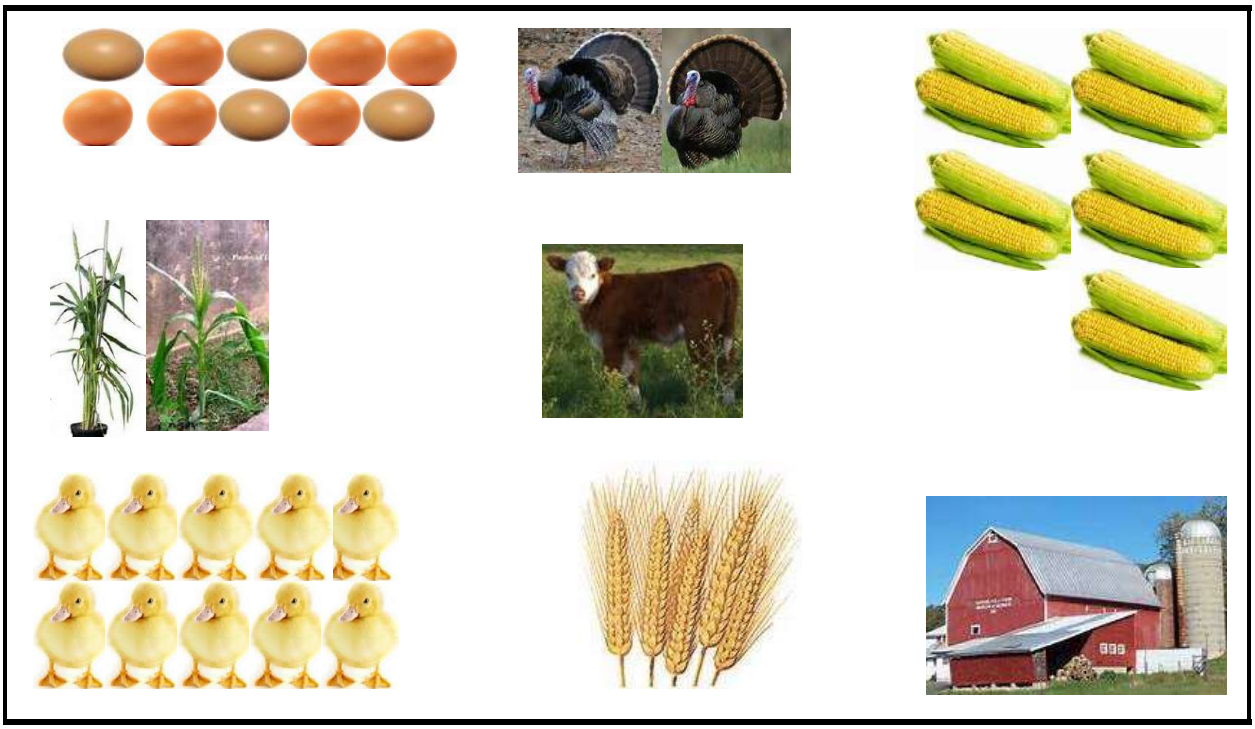
10	10	10	10	10	10
10					
ten					

Circle 10 ducklings.

Write ten and 10 next to the correct sets.

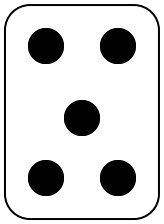


Circle the groups with 10.



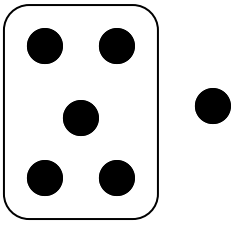
Using 5 to make 6, 7, 8, 9 and 10

I have 5.



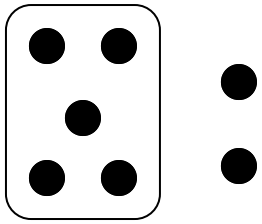
= 5

I have one more than 5.



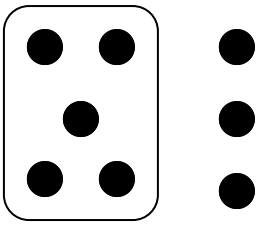
= 6

I have two more than 5.



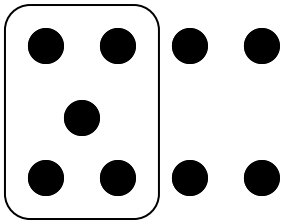
= 7

I have three more than 5.



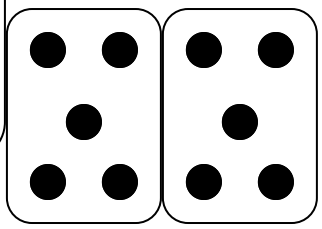
= 8

I have four more than 5.



= 9

I have five more than 5.



= 10

Money: coins

1 cent 1 ¢	5 cents 5 ¢	10 cents 10 ¢

Equivalent coins

Coins	The same as

Coins	The same as

Circle the same as (same value).

Money: dollars

1 dollar	5 dollars	10 dollars
$ 1	$ 5	$ 10

Equivalent dollars

Dollars	The same as

Dollars	The same as

Buying fruits

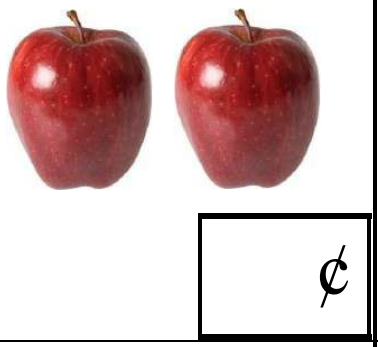
apple
5 ¢

banana
2 ¢

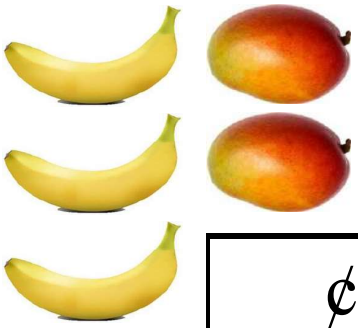
mango
2 ¢

orange
2 ¢

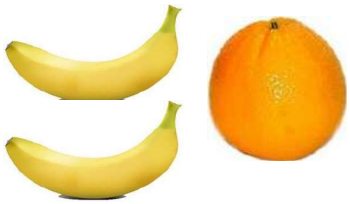
Write the cost in the box and circle the money.



¢



¢



¢

At the grocery

smalta
$2

milk
$2

butter
$2

bread
$5

Write the cost in the box and circle the money.

$

$

$

Ordinal Numbers
First, second, third and last

third second first

third second first

Joe	Jane	Tom	Mary
first	second	third	last

1. Joe is first.
2. Jane is second.
3. Tom is third.
4. Mary is last.

Ale	Arlena	Joel	Faith
first	second	third	last

1. Who is first?_____
2. Who is second?

   _____
3. Who is third?

   _____
4. Who is last?

   _____

Number Patterns

These are number patterns.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Add 1 to get the next number.

2, 4, 6, 8, 10

Add 2 to get the next number.

3, 6, 9

Add 3 to get the next number.

4, 8

Add 4 to get the next number.

Circle and write the 2 missing numbers.

2, 3, ____,____, 6	**4, 5** **4, 6**
3, ____,____	**7, 8** **6, 9**
2, ____,____, 8	**4, 6** **3, 4**
5, ____,____, 8, 9	**6, 7** **7, 8**

Circle and write the next 2 numbers.

1, 2, 3, 4, ____,____	**3, 4** **5, 6**
4, 5, 6, 7, ____,____	**8, 9** **7, 8**
1, 3, 5, ____,____	**7, 9** **6, 7**
2, 4, ____,____	**6, 8** **5, 6**

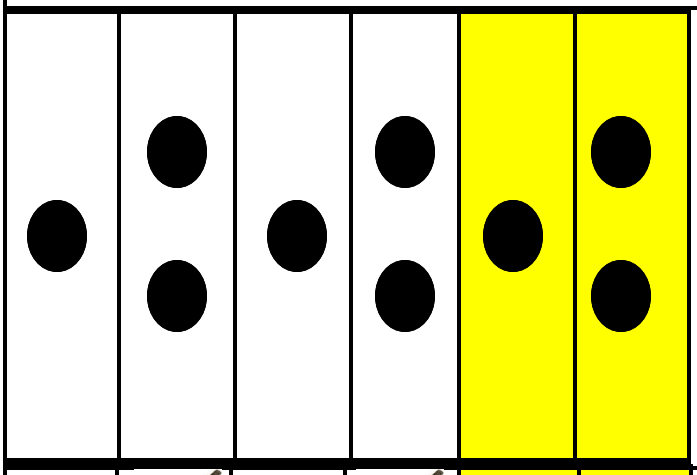
Two elements pattern

1, 2, 1, 2, <u>1, 2</u>

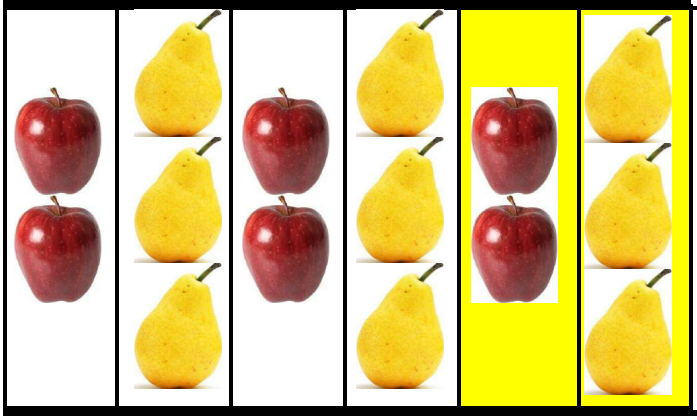
These are the next two numbers in the pattern.

3, 4, 3, 4, <u>3, 4</u>

These are the next two numbers in the pattern.

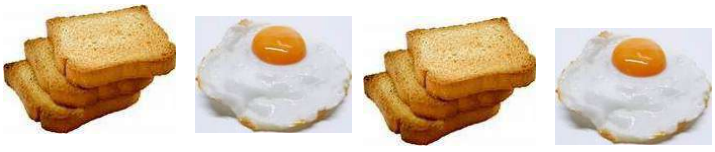
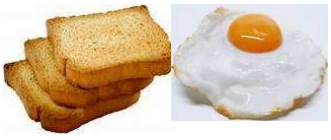


These are the next dots in the pattern.



These are the next objects in the pattern.

Circle the next 2 in each.

3, 2, 3, 2,___,___	3, 2 3, 4
3, 3, 4, 4,___,___	5, 5 5, 6
___ ___	
 ___ ___	

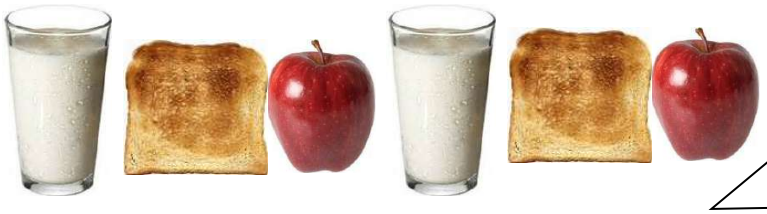
Three elements pattern

1, 2, 3, <u>1, 2, 3</u>

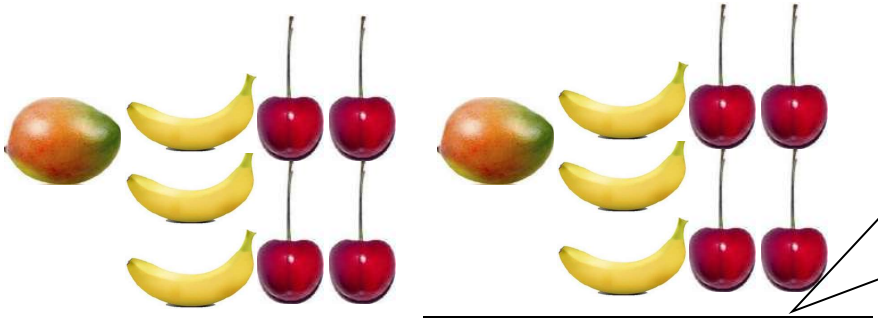
These are the next 3 numbers in the pattern.

1, 1, 1, <u>2, 2, 2</u>

These are the next 3 numbers in the pattern.



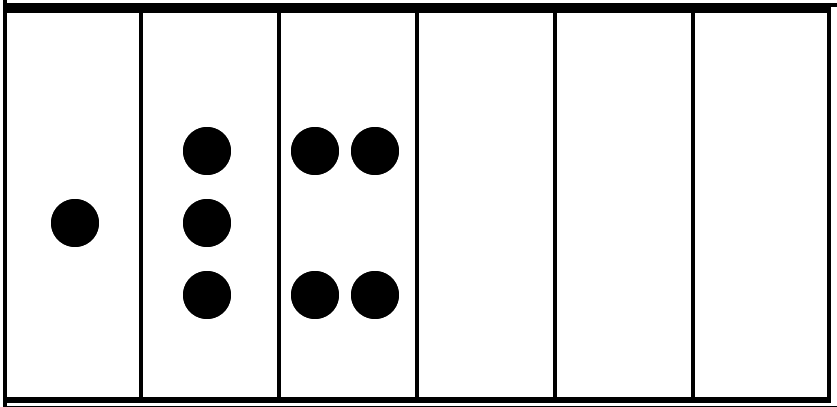
These are the next 3 objects in the pattern.

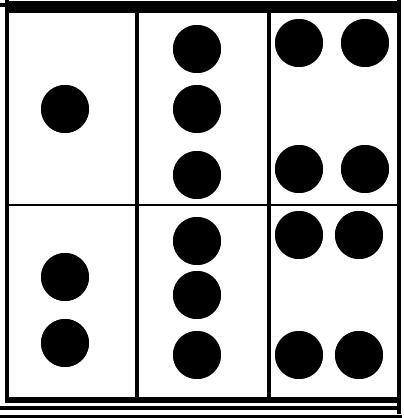


These are the next fruits in the pattern.

Circle the missing ones.

2, 3, 4, ___,___,___	3, 4, 5
	2, 3, 4
1, 2, 1, ___,___,___	1, 2, 1
	2, 3, 4



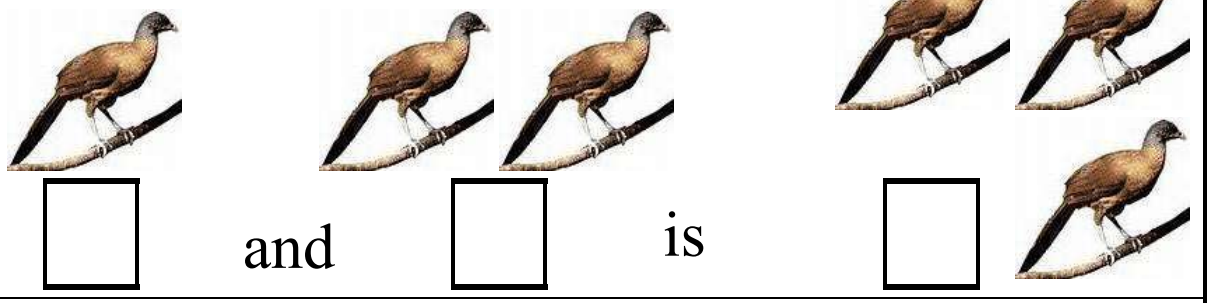


___ ___ ___

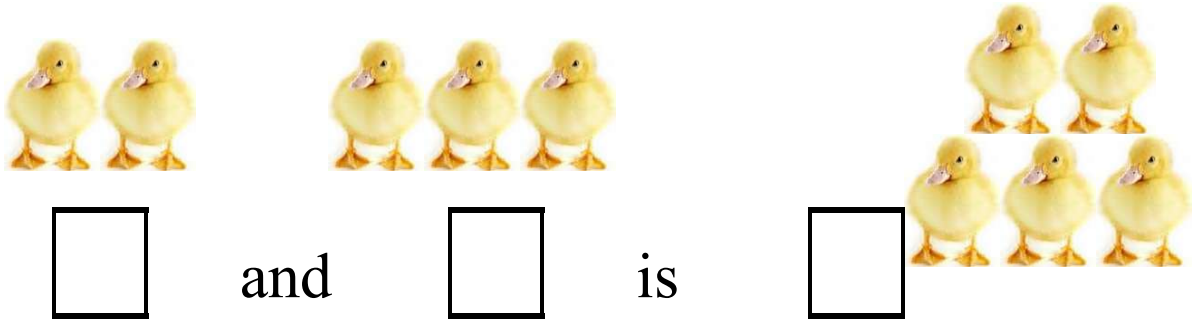
Addition: and

1 and **1** is **2**

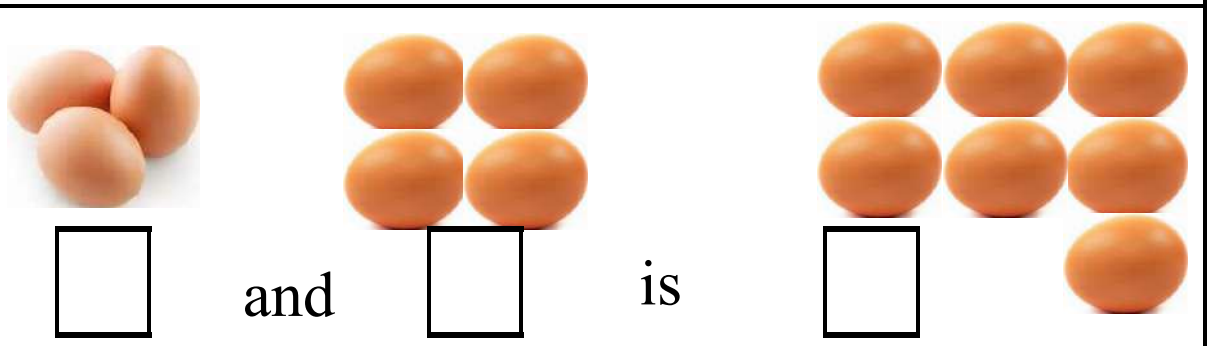
Write the numbers in the boxes.



and is

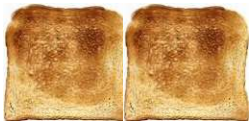


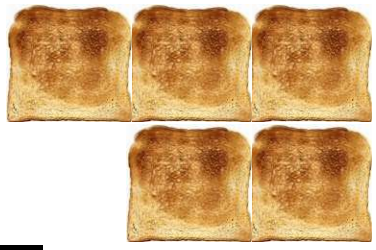
and is



and is

How many altogether



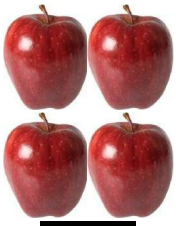
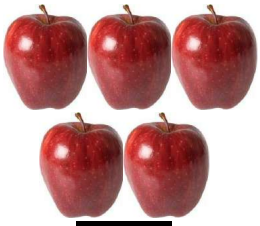
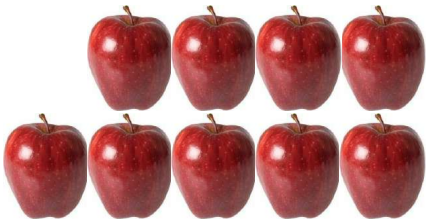


2	and	3	is	5	altogether

Write the numbers in the boxes.

	and		is		altogether

	and		is		altogether

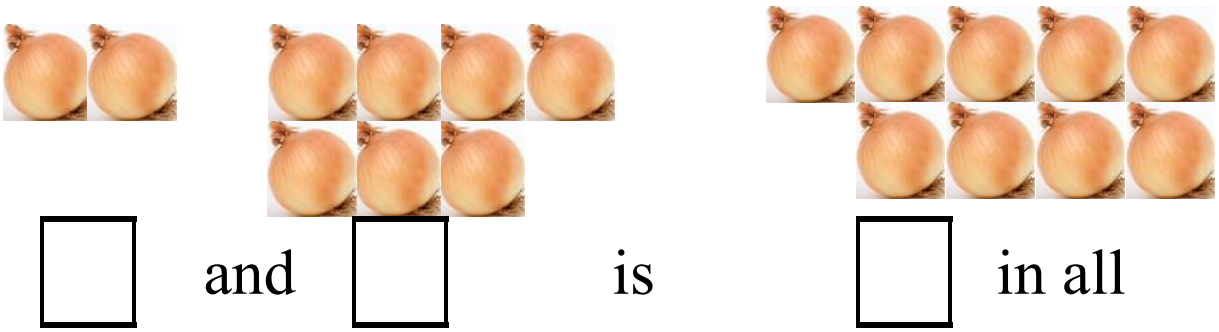




	and		is		altogether

In all

3 and 3 is 6 in all

Write the numbers in the boxes.

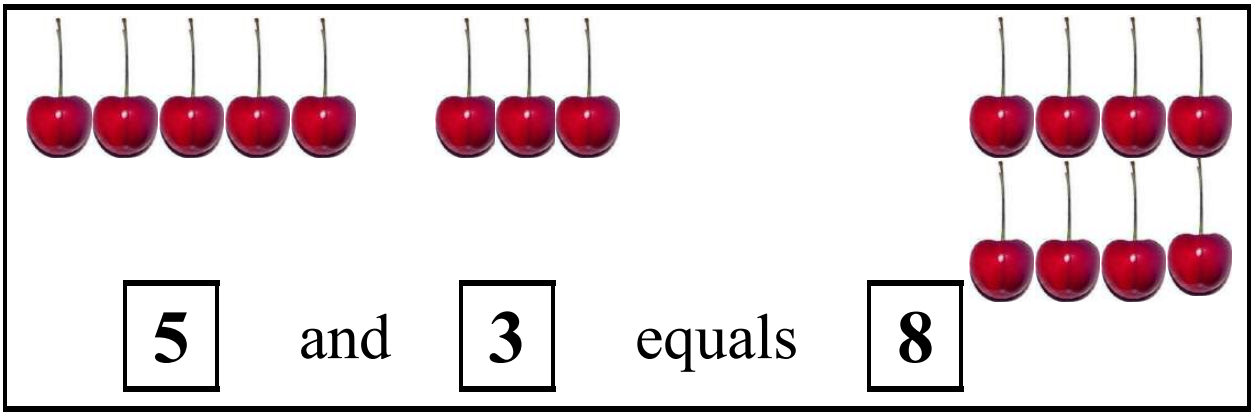


☐ and ☐ is ☐ in all

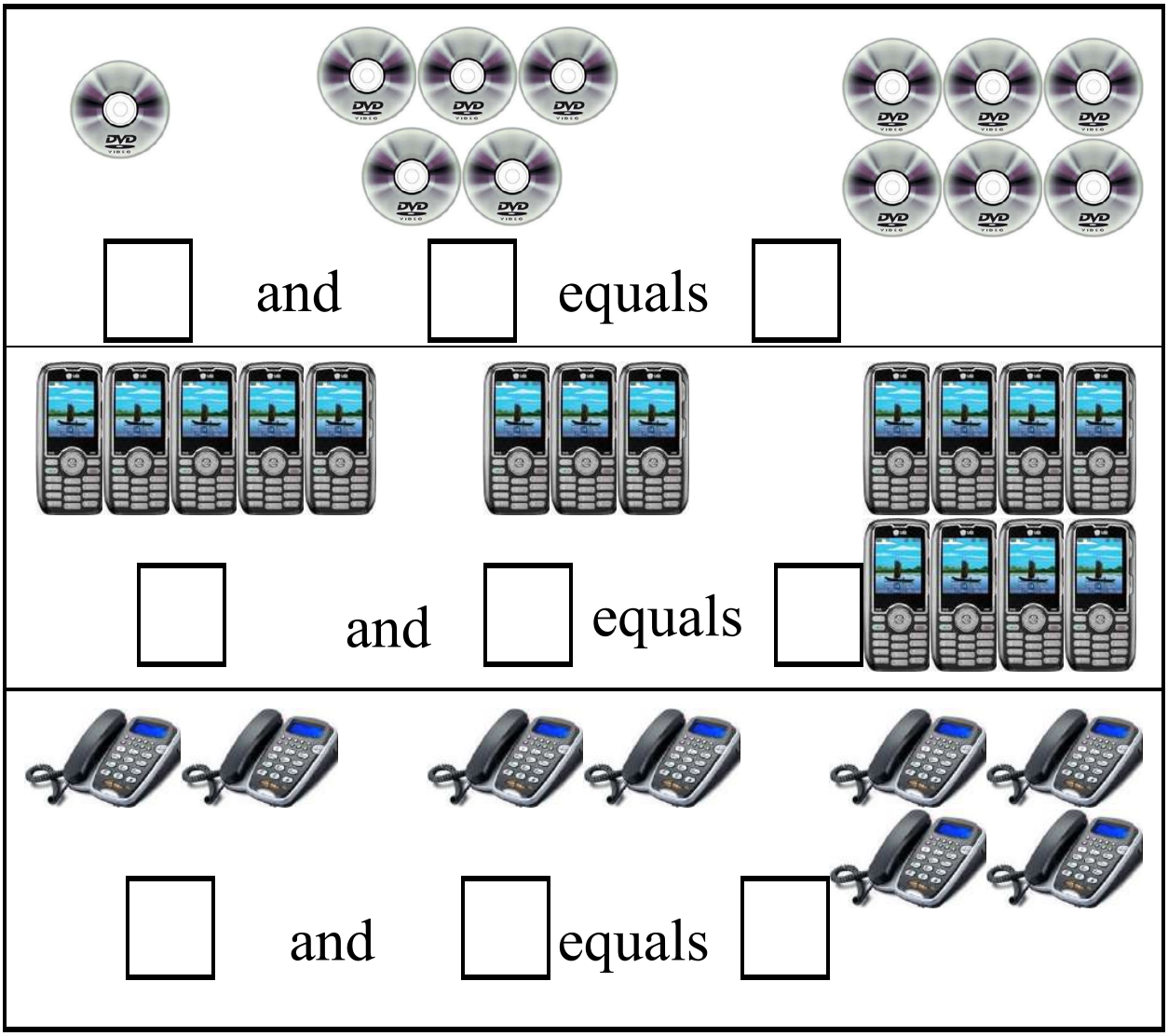
☐ and ☐ is ☐ in all

☐ and ☐ is ☐ in all

Equals



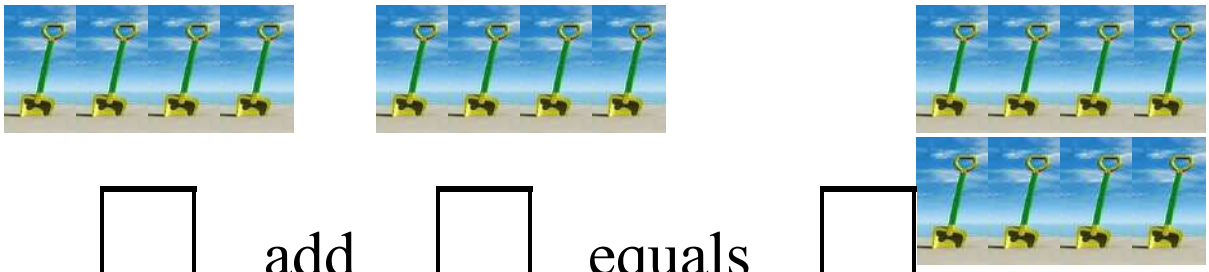
Write the numbers in the boxes.



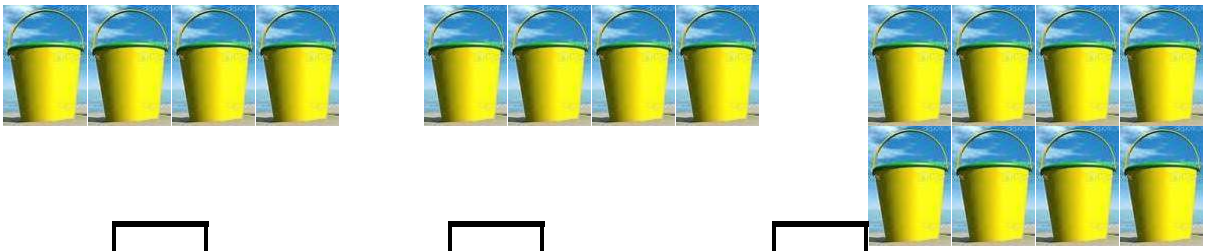
Add

3 add **7** equals **10**

Write the numbers in the boxes.



☐ add ☐ equals ☐



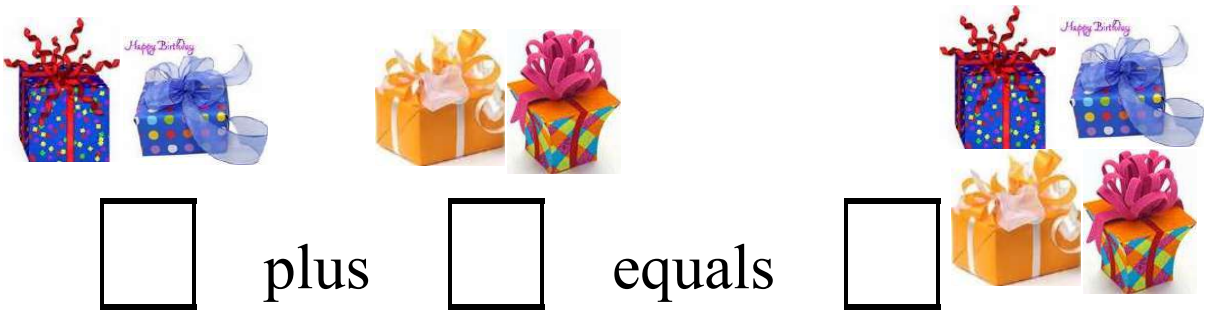
☐ add ☐ equals ☐

☐ add ☐ equals ☐

Plus

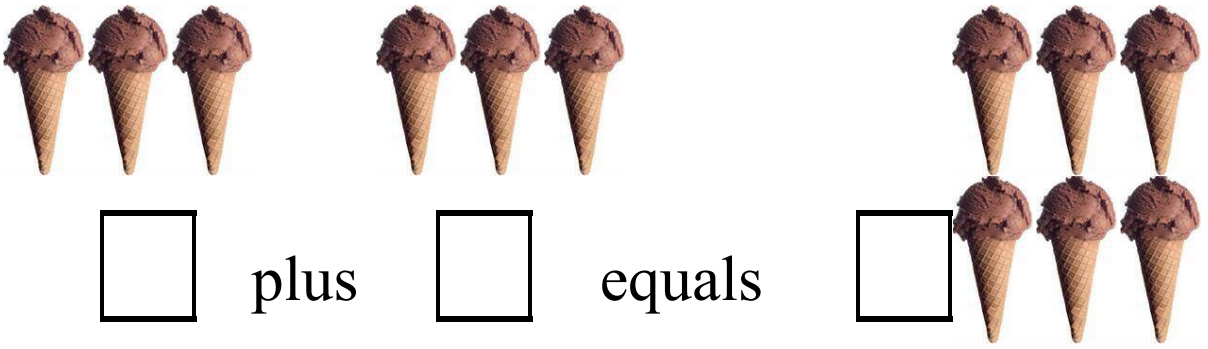
4 plus **3** equals **7**

Write the numbers in the boxes.



☐ plus ☐ equals ☐

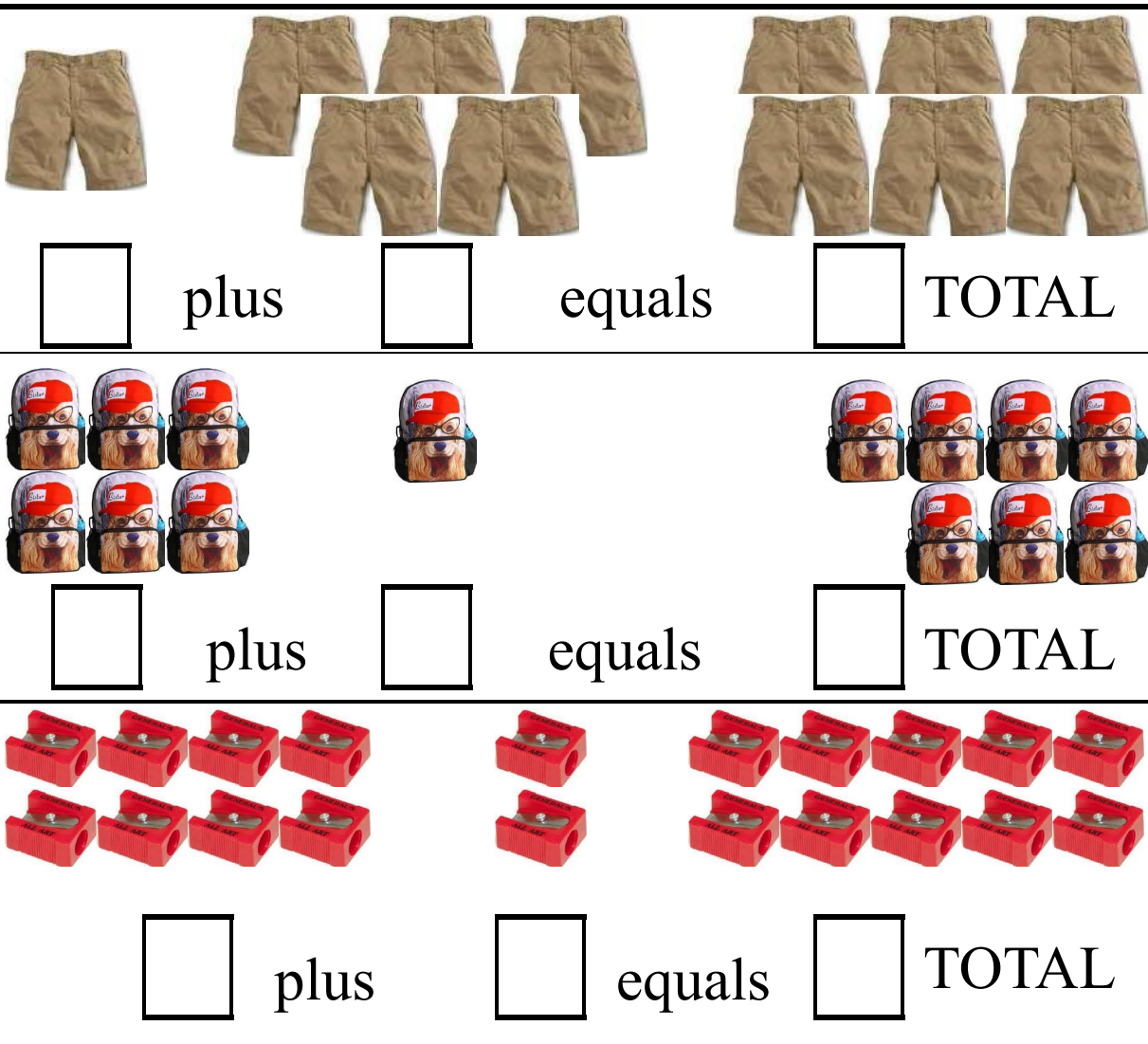
☐ plus ☐ equals ☐



☐ plus ☐ equals ☐

Total

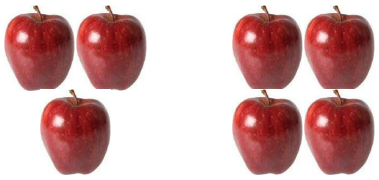
Write the numbers in the boxes.



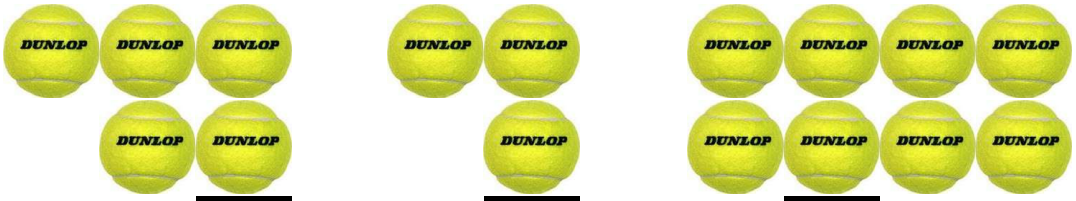
Sum

Find the sum of 3 and 4.

I have 3 apples **and** 4 apples.

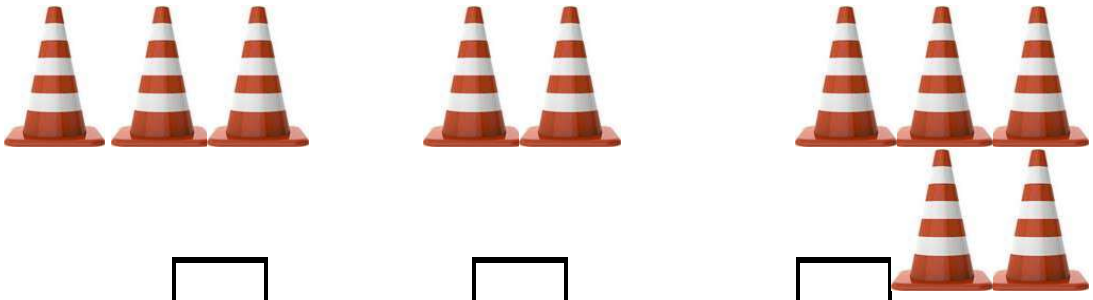


1, 2, 3, 4, 5, 6, 7



The sum of **5** and **3** is **8**

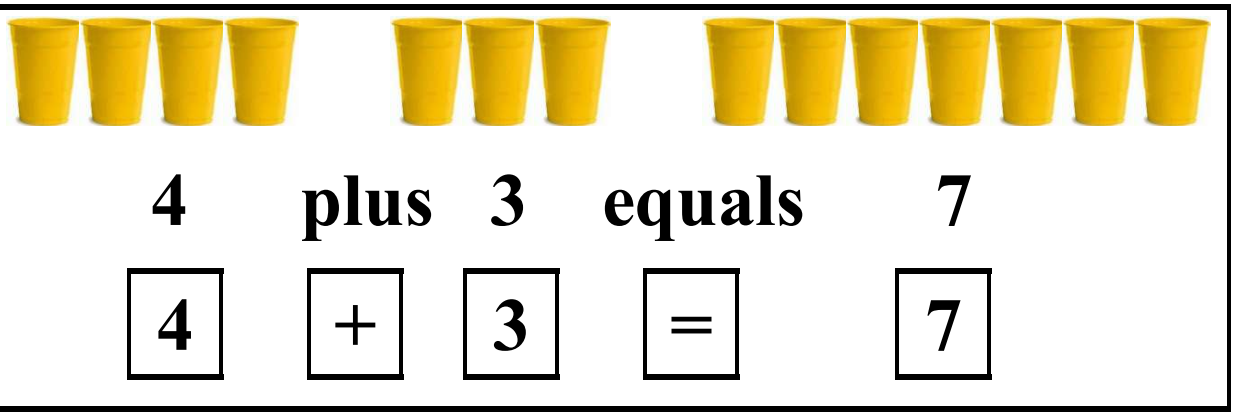
Write the numbers in the boxes.



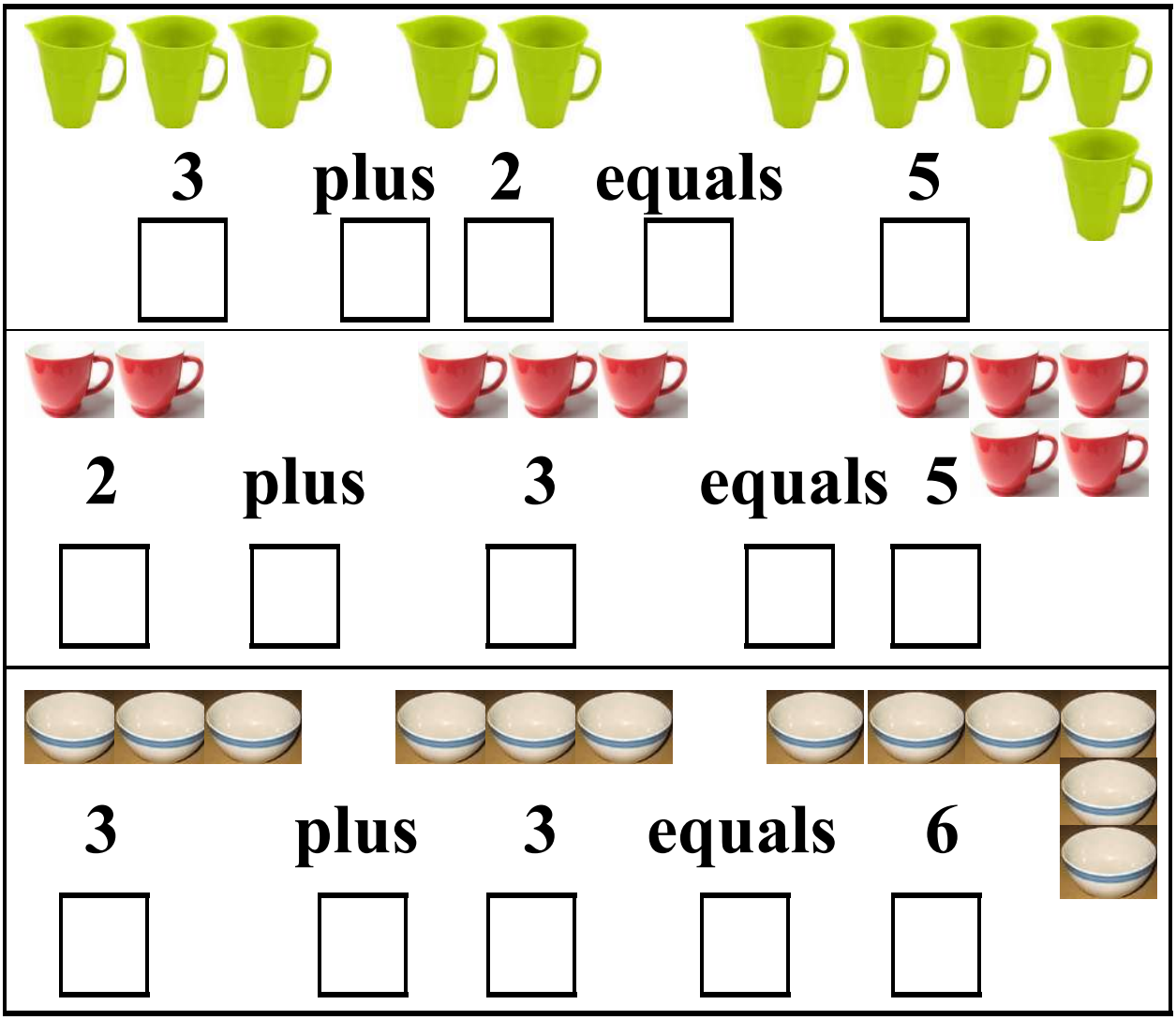
The sum of ☐ and ☐ is ☐

The sum of ☐ and ☐ is ☐

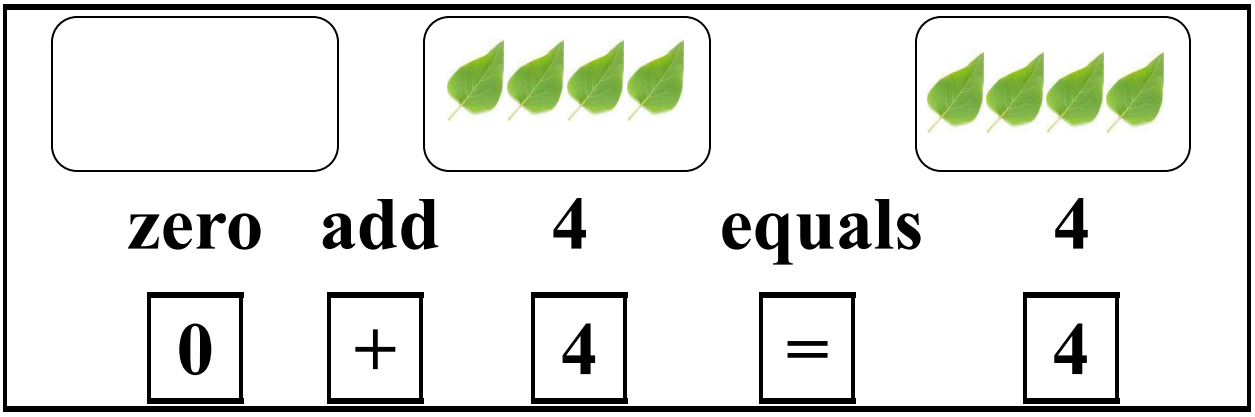
+ and = signs



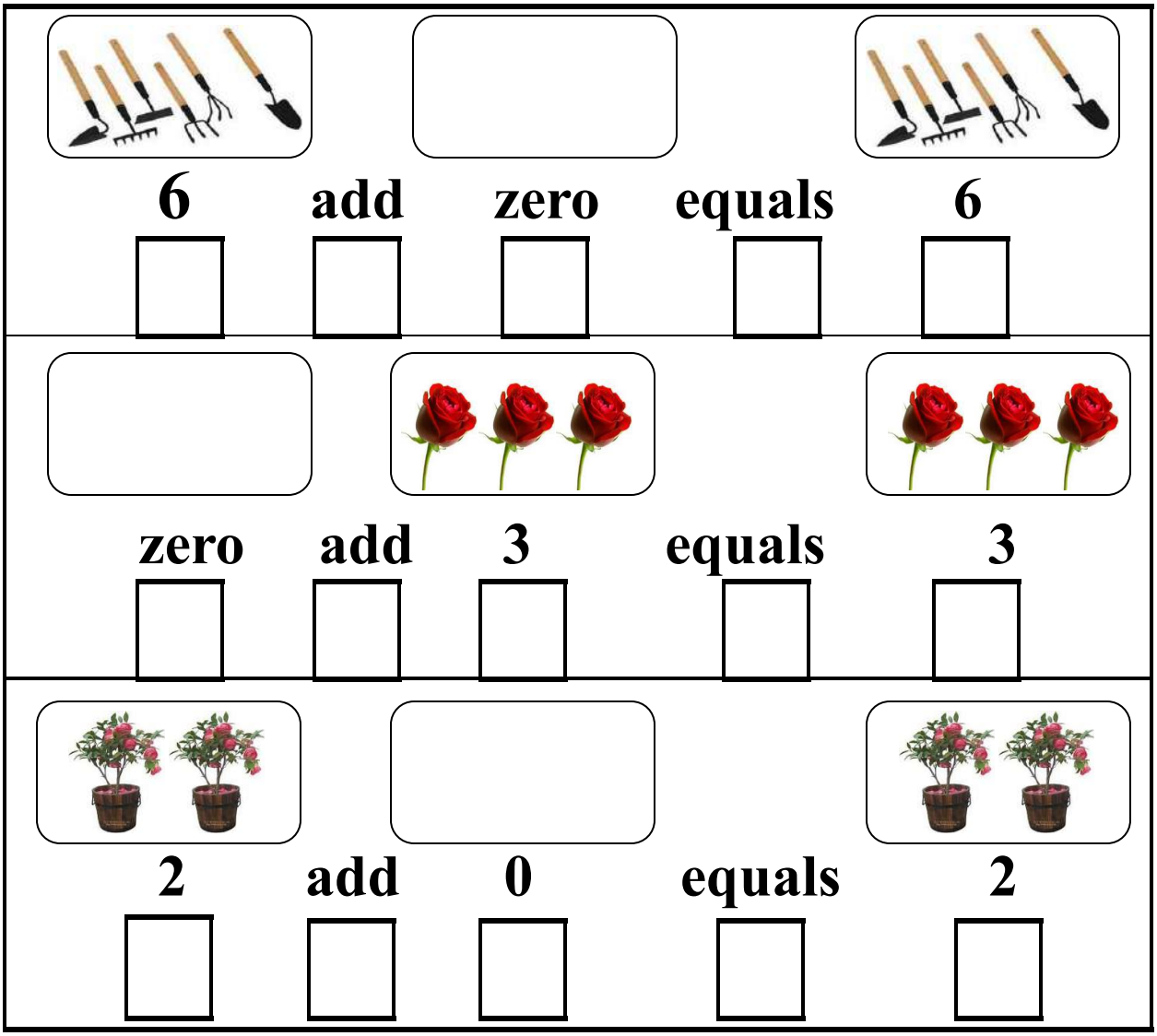
Complete the boxes.



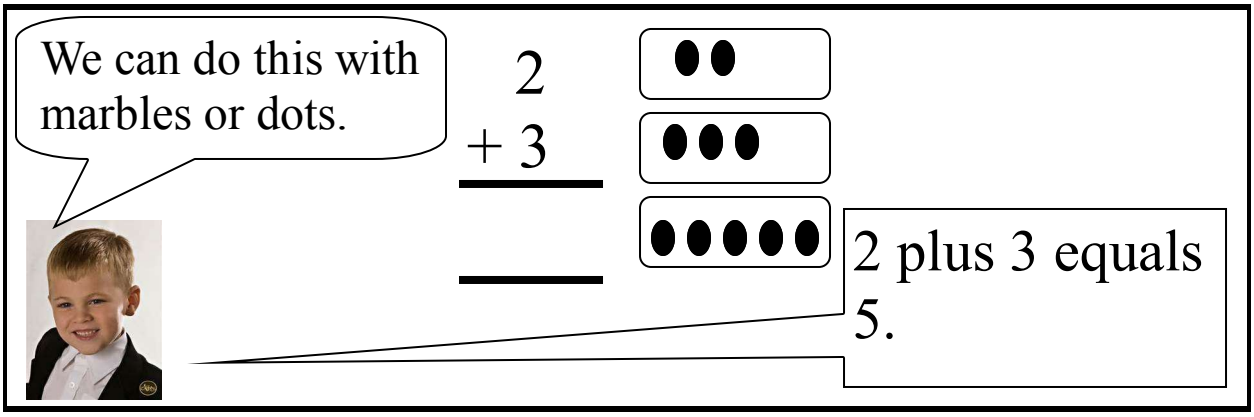
Addition with Zero



Complete the boxes.



Adding vertically



Use dots or marbles to do these.

3 + 7	2 + 8
8 + 2	0 + 8
5 + 0	9 + 0

1 + 9 _____ _____	6 + 4 _____ _____
3 + 7 _____ _____	2 + 8 _____ _____
7 + 3 _____ _____	5 + 5 _____ _____
5 + 2 _____ _____	10 + 0 _____ _____

Adding horizontally

We can do this with marbles or dots.

$2 + 3 = \boxed{5}$

2 plus 3 equals 5.

Use dots or marbles to do these.

$3 + 4 = \square$	$4 + 3 = \square$
$5 + 5 = \square$	$0 + 9 = \square$
$4 + 5 = \square$	$7 + 2 = \square$

$8 + 0 = \square$	$6 + 4 = \square$
$5 + 2 = \square$	$5 + 4 = \square$
$9 + 1 = \square$	$8 + 0 = \square$
$10 + 0 = \square$	$1 + 7 = \square$

Addition with money

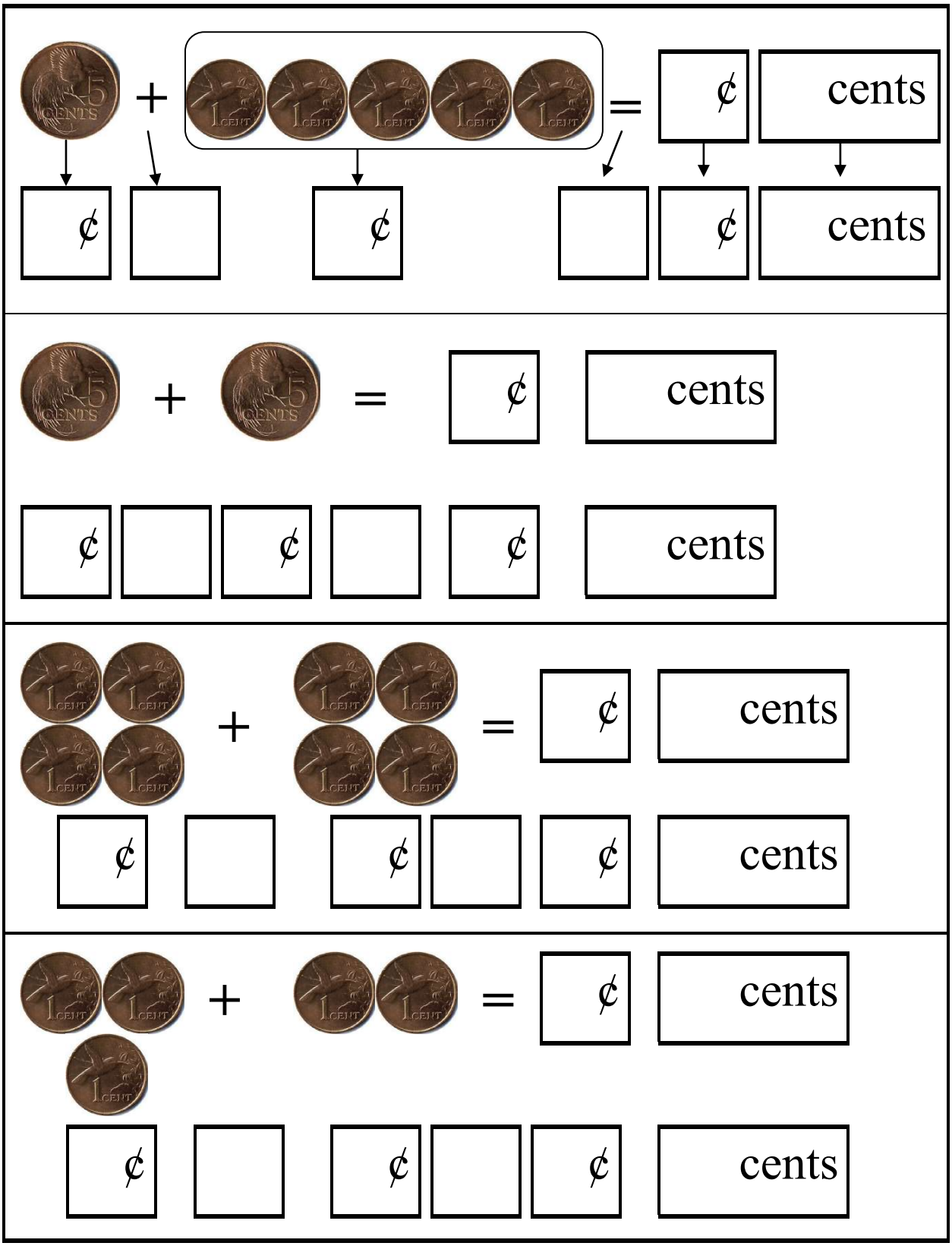
Complete the boxes.

9 ¢	10 ¢
9 cents	10 cents
$8	$10
8 dollars	10 dollars

Add these

= 6 ¢	= 8 ¢
6 cents	8 cents
1 cent add 5 cents is 6 cents	
$2	$7
2 dollars	7 dollars

Complete the boxes.



Complete the boxes.

+ = $ dollars

$ ☐ $ ☐ $ dollars

+ = $ dollars

$ ☐ $ ☐ $ dollars

+ = $ dollars

$ ☐ $ ☐ $ dollars

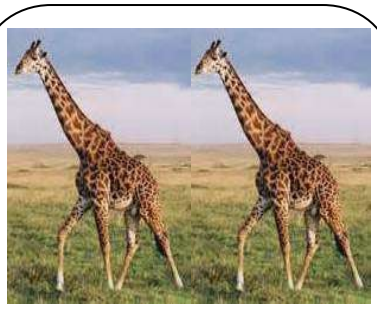
+ = $ dollars

$ ☐ $ ☐ $ dollars

Number stories

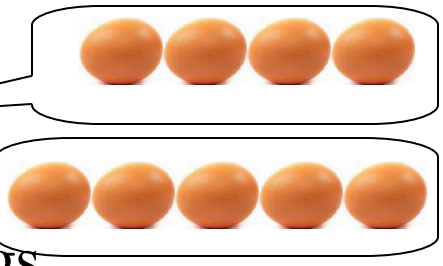
At the zoo

Our zoo had no giraffe.
Last year two giraffes came.
Now we have _____ giraffes.



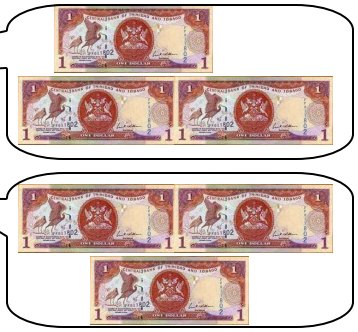
At the farm

Joel collected four eggs.
Faith collected five eggs.
They have a **total** of _____eggs.



Money

Mummy gave Joel three dollars.
Daddy gave Faith three dollars.
They both have _____ dollars
in all.

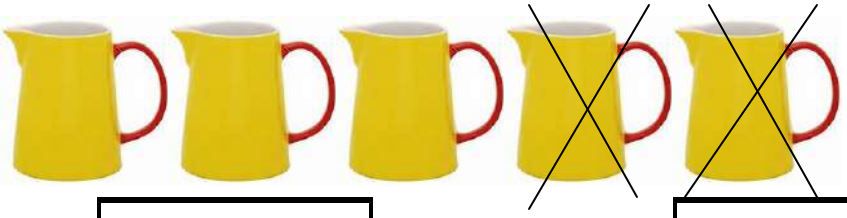


Christmas

Joel got four gifts.
Faith got four gifts.
They have equal number of gifts.

Subtraction: remove and remain

Write the number in the boxes.



remove 2 | remain with 3

remove 4 | remain with ☐

remove 8 | remain with ☐

Write the number in the boxes

remove 4 | remain with

remove 7 | remain with

remove 3 | remain with

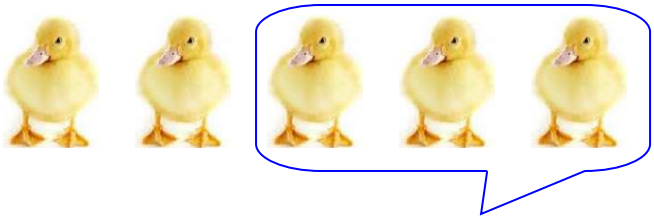
remove 4 | remain with

Take away

2 take away 1 is 1

Write the numbers in the boxes.

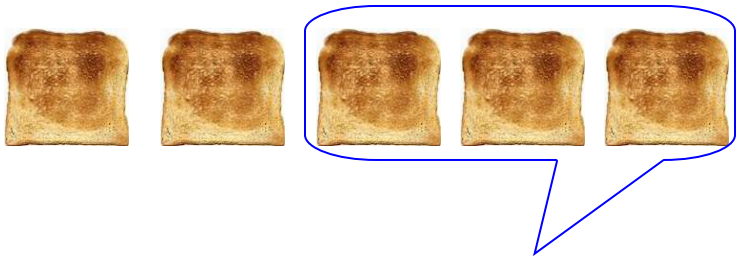
3 take away 2 is ☐



5 take away 3 is ☐

6 take away 2 is ☐

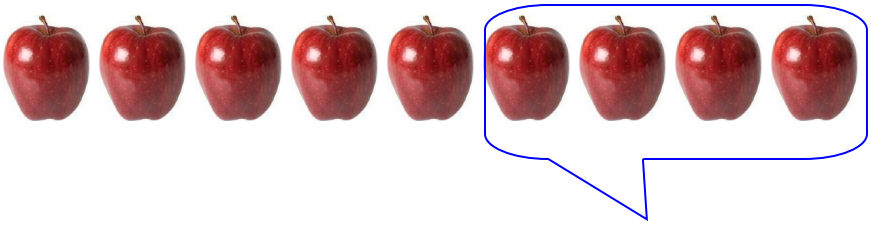
Take away



5 take away **3** is ☐

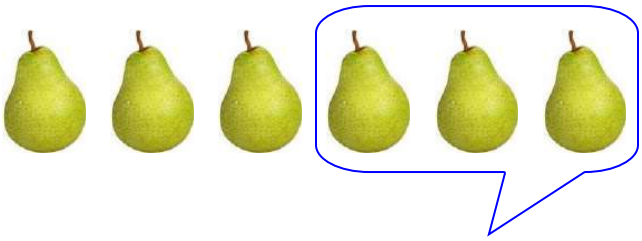
9 take away **5** is ☐

7 take away **2** is ☐



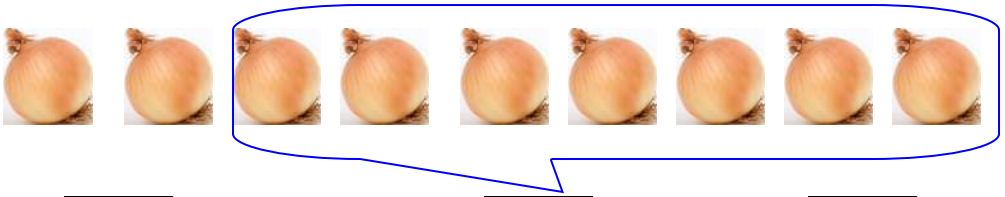
9 take away **4** is ☐

Leaves



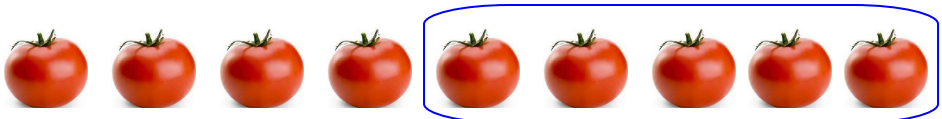
6	take away	**3**	leaves	**3**

Write the numbers in the boxes.



	take away		leaves		

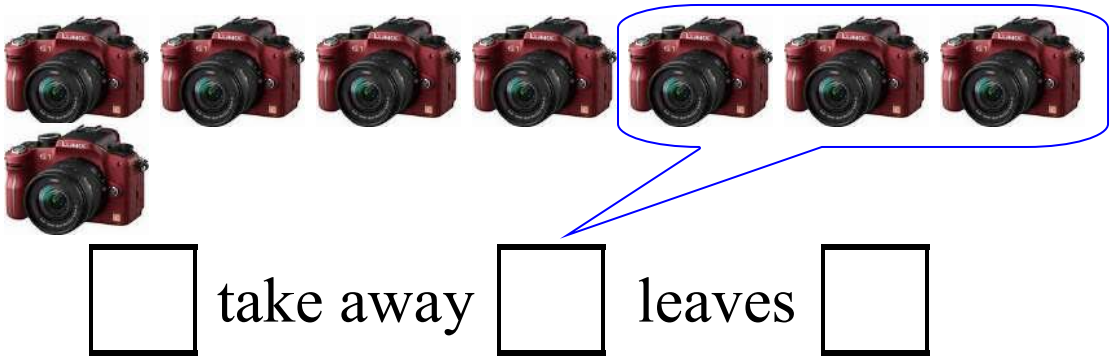
	take away		leaves		



	take away		leaves		

Leaves

Write the numbers in the boxes.



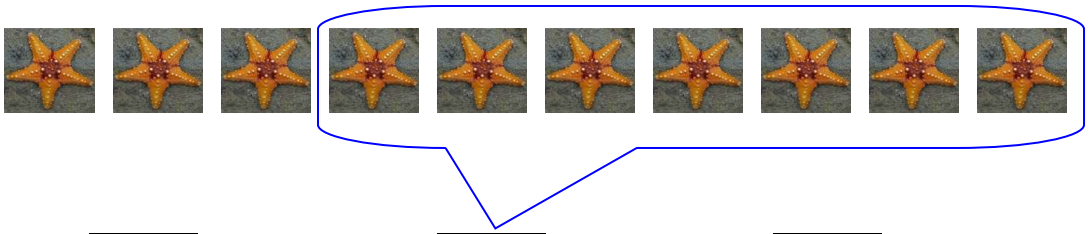
☐ take away ☐ leaves ☐

☐ take away ☐ leaves ☐

☐ take away ☐ leaves ☐

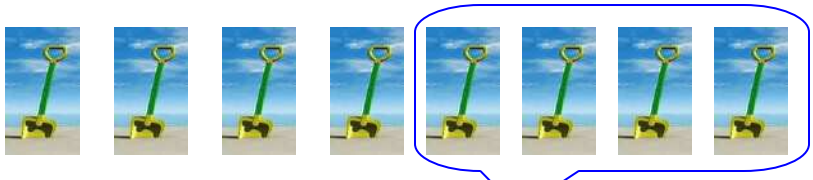
☐ take away ☐ leaves ☐

Minus and equals



10 minus **7** equals **3**

Write the numbers in the boxes.



☐ minus ☐ equals ☐

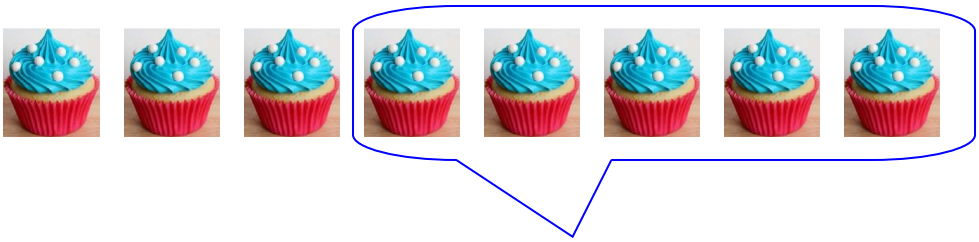
☐ minus ☐ equals ☐

☐ minus ☐ equals ☐

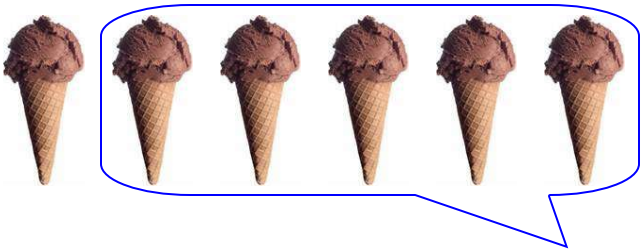
Minus and equals

☐ minus ☐ equals ☐

☐ minus ☐ equals ☐

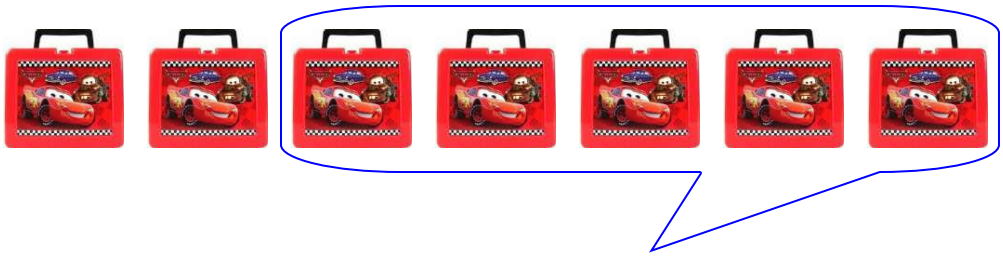


☐ minus ☐ equals ☐



☐ minus ☐ equals ☐

Subtract

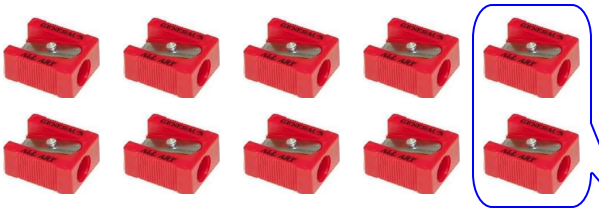


7 subtract 5 equals 2

Write the numbers in the boxes.

☐ subtract ☐ equals ☐

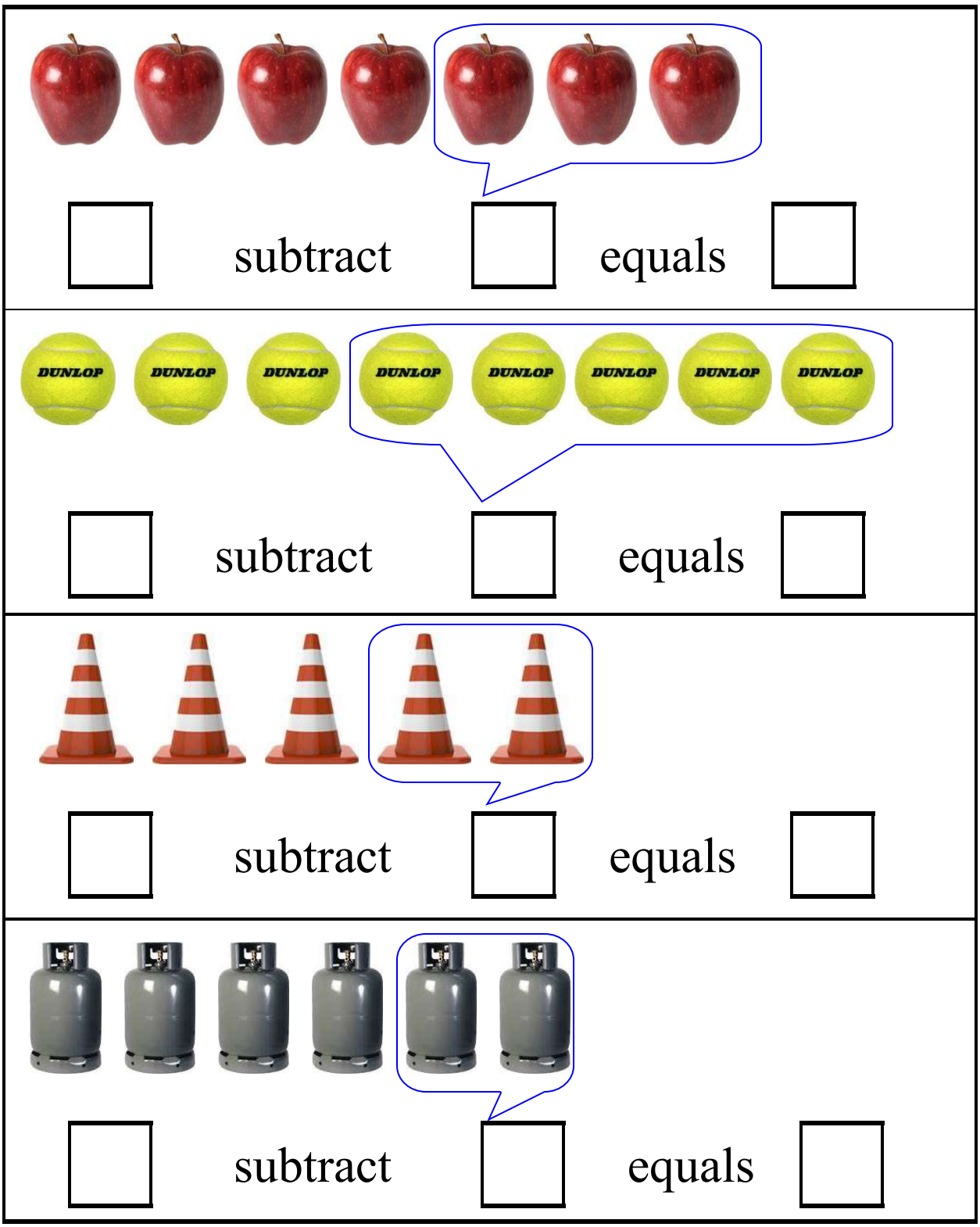
☐ subtract ☐ equals ☐



☐ subtract ☐ equals ☐

Subtract

Write the numbers in the boxes.



- and = signs

7 minus 3 equals 4

7	-	3	=	4

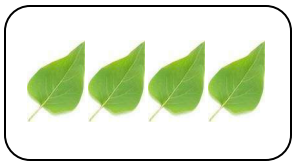
Complete the boxes.

5 minus 2 equals 3

5 minus 3 equals 2

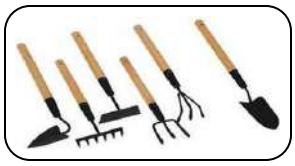
6 minus 3 equals 3

Subtraction with Zero: complete the boxes.

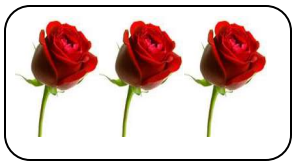


4 minus 0 equals 4

4	-	0	=	4



6 minus 6 equals 0



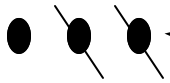
3 minus 0 equals 3

2 minus 2 equals 0

Subtracting vertically

We can do this with marbles or dots.

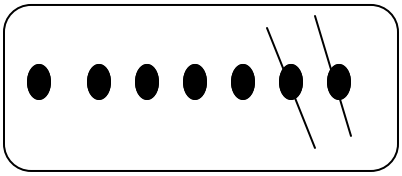
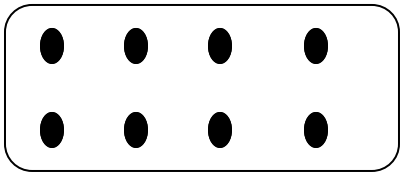
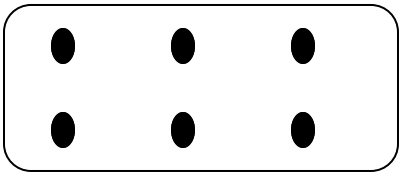
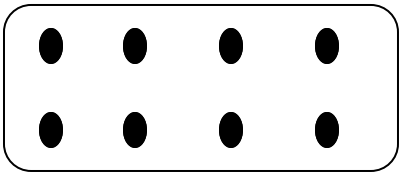
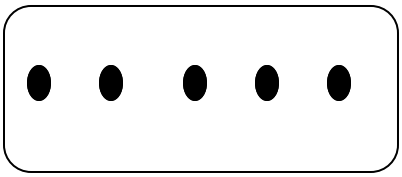
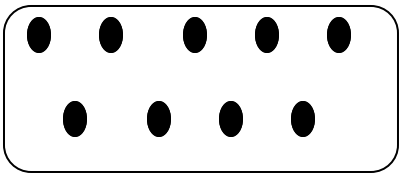
$$\begin{array}{r} 3 \\ -\ 2 \\ \hline 1 \end{array}$$



Cross out 2 to subtract 2.

3 subtract 2 is 1

Cross out dots to do these.

$\begin{array}{r} 7 \\ -\ 2 \\ \hline \\ \hline \end{array}$ 	$\begin{array}{r} 8 \\ -\ 2 \\ \hline \\ \hline \end{array}$ 
$\begin{array}{r} 6 \\ -\ 3 \\ \hline \\ \hline \end{array}$ 	$\begin{array}{r} 8 \\ -\ 0 \\ \hline \\ \hline \end{array}$ 
$\begin{array}{r} 5 \\ -\ 1 \\ \hline \\ \hline \end{array}$ 	$\begin{array}{r} 9 \\ -\ 5 \\ \hline \\ \hline \end{array}$ 

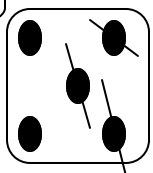
Draw dots and do these.

9 - 2 _____ _____	6 - 4 _____ _____
7 - 3 _____ _____	8 - 1 _____ _____
7 - 6 _____ _____	5 - 5 _____ _____
8 - 6 _____ _____	7 - 0 _____ _____

Subtracting horizontally

We can do this with marbles or dots.

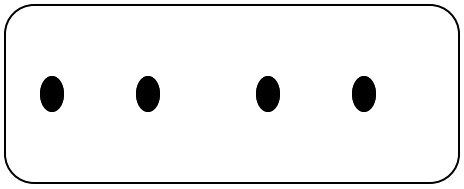
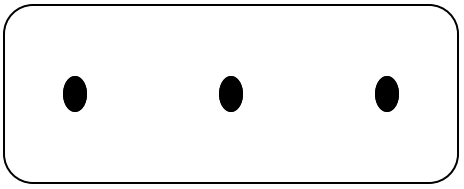
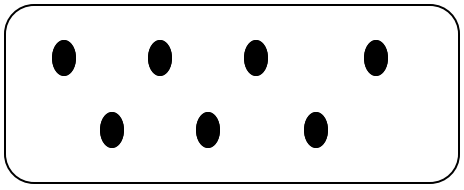
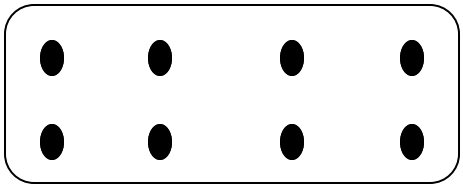
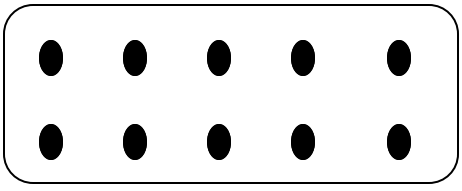
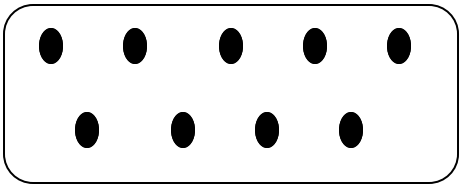
5 - 3 = **2**



Make 5 dots and cross out 3.

5 subtract 3 equals 2

Cross out dots to do these.

4 - 1 = ☐ 	3 - 2 = ☐ 
7 - 3 = ☐ 	8 - 4 = ☐ 
10 - 6 = ☐ 	9 - 5 = ☐ 

Draw dots and do these.

8 - 3 = ☐	6 - 4 = ☐
5 - 1 = ☐	5 - 4 = ☐
9 - 8 = ☐	8 - 8 = ☐
10 - 10 = ☐	6 - 3 = ☐

Subtraction with money

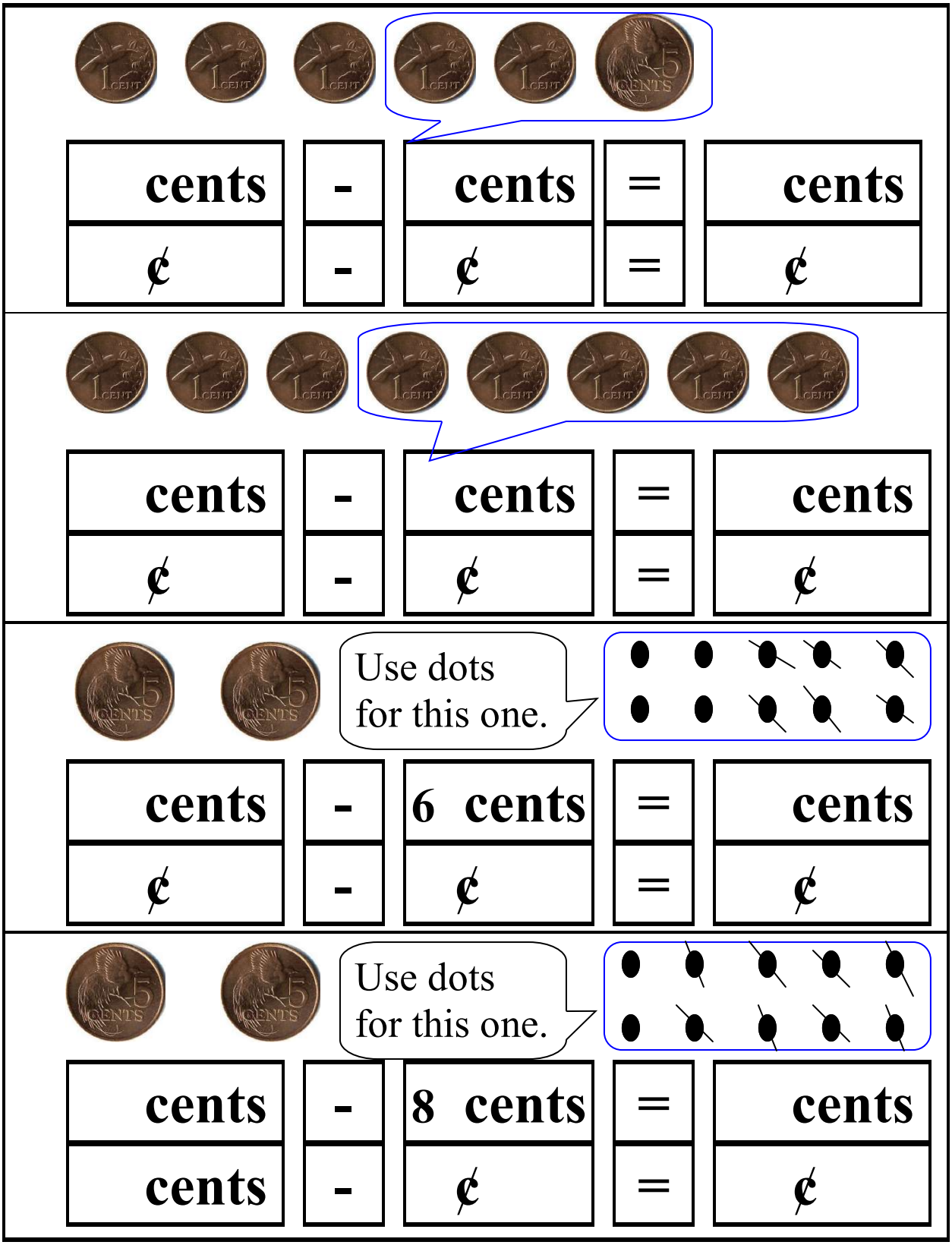
10 cents	-	6 cents	=	4 cents
10 ¢	-	6 ¢	=	4 ¢

10 cents	-	4 cents	=	6 cents
10 ¢	-	4 ¢	=	6 ¢

9 dollars	-	4 dollars	=	5 dollars
$ 9	-	$ 4	=	$ 5

10 dollars	-	5 dollars	=	5 dollars
$ 10	-	$ 5	=	$ 5

Complete the boxes.



cents	-	cents	=	cents
¢	-	¢	=	¢

cents	-	cents	=	cents
¢	-	¢	=	¢

Use dots for this one.

cents	-	6 cents	=	cents
¢	-	¢	=	¢

Use dots for this one.

cents	-	8 cents	=	cents
cents	-	¢	=	¢

Complete the boxes.

dollars	-	dollars	=	dollars
$	-	$	=	$

dollars	-	dollars	=	dollars
$	-	$	=	$

dollars	-	dollars	=	dollars
$	-	$	=	$

dollars	-	dollars	=	dollars
$	-	$	=	$

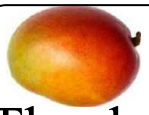
Number stories

Garbage

Five empty milk packs.
Joel puts them in the bin.
Now there is none.

Sharing

Joel has two mangoes.
He **gives** Faith one mango.
He is **left** with _____ mango.



Thank you Joel.

Mummy has four pears.
She **gives** Joel one.
She **gives** Faith one.
She **gives** daddy one.
She **remains** with _____.

Joel

Faith

Daddy

Mummy

Subtracting

I have $3

I **subtract** $2.
Now I have $1.

Mental Mathematics
Using the number line instead of dots and marbles

We can use the number line to add or subtract.

0	1	2	3	4	5	6	7	8	9	10

backward ← → forward

Add means to go **forward**.
Subtract means to go **backward**.

3 + 1

0	1	2	3	4	5	6	7	8	9	10

Start by 3. Add 1 means to go 1 place **forward.**

= 4

2 + 5

0	1	2	3	4	5	6	7	8	9	10

Start by 2. Add 5 means to go 5 places **forward.**

= 7

9 - 6

0	1	2	3	4	5	6	7	8	9	10

Start by 9. Subtract 6 means to go 6 places **backward.**

= 3

Do these.

2 + 8

0	1	2	3	4	5	6	7	8	9	10

Start by 2. Add 8 means to go 8 places **forward.**

= ☐

8 - 2

0	1	2	3	4	5	6	7	8	9	10

Start by 8. Subtract 2 means to go 2 places **backward.**

= ☐

2 + 6

0	1	2	3	4	5	6	7	8	9	10

Start by 2. Add 6 means to go 6 places **forward.**

= ☐

6 - 2

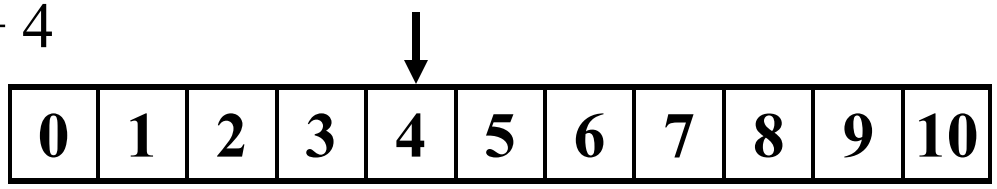
0	1	2	3	4	5	6	7	8	9	10

Start by 6. Subtract 2 means to go 2 places **backward.**

= ☐

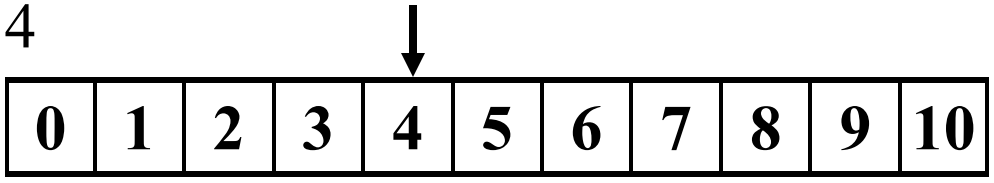
Do these.

4 + 4



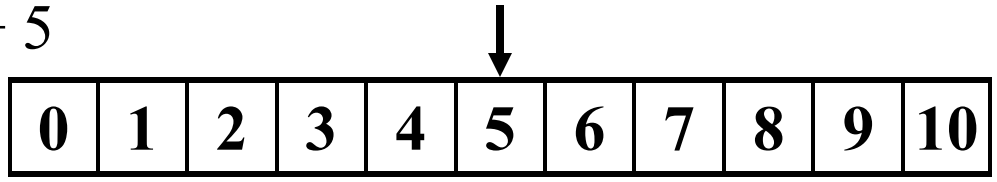
=

4 - 4



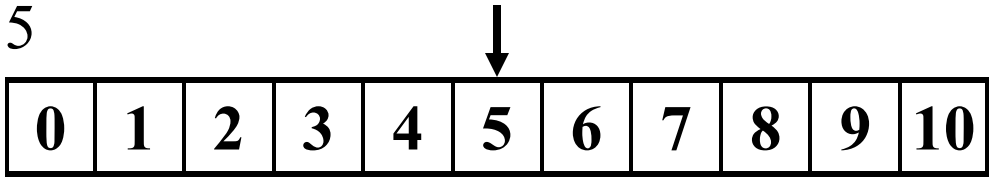
=

5 + 5



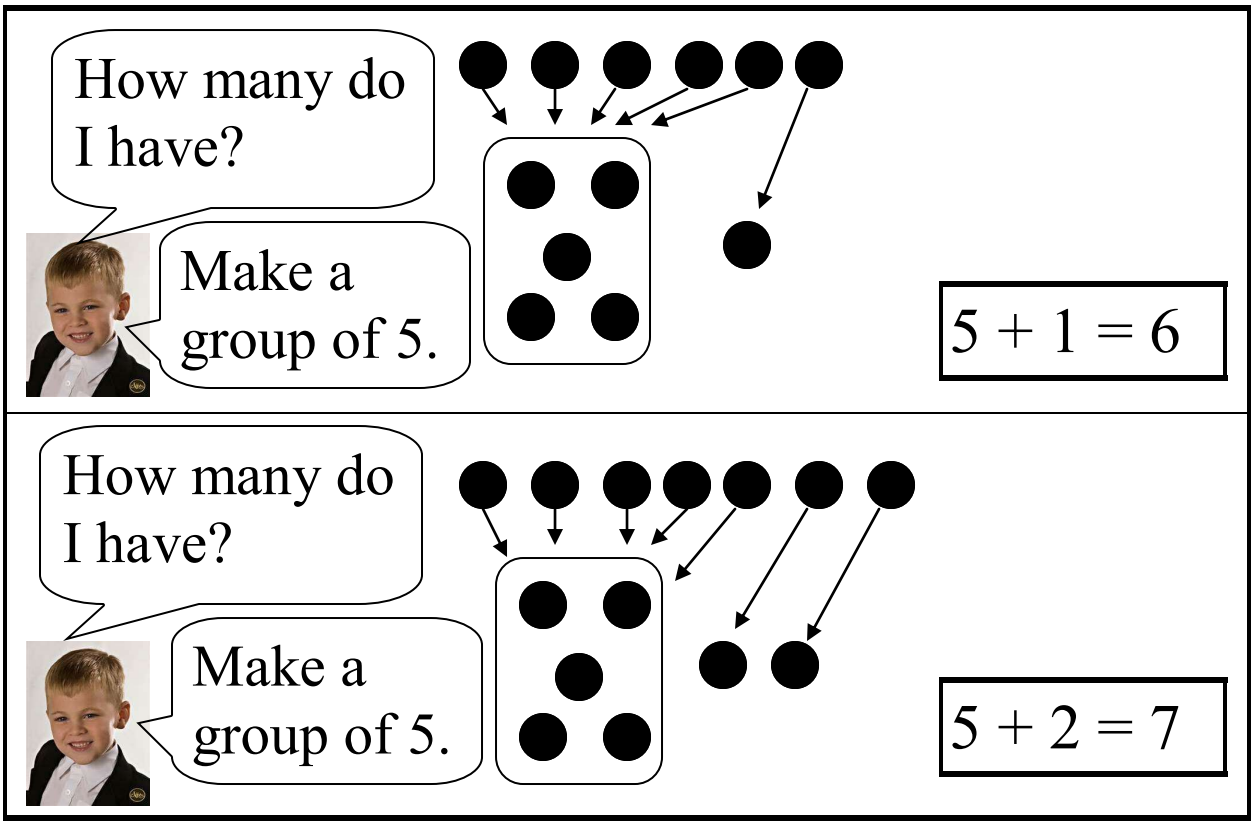
=

5 - 5

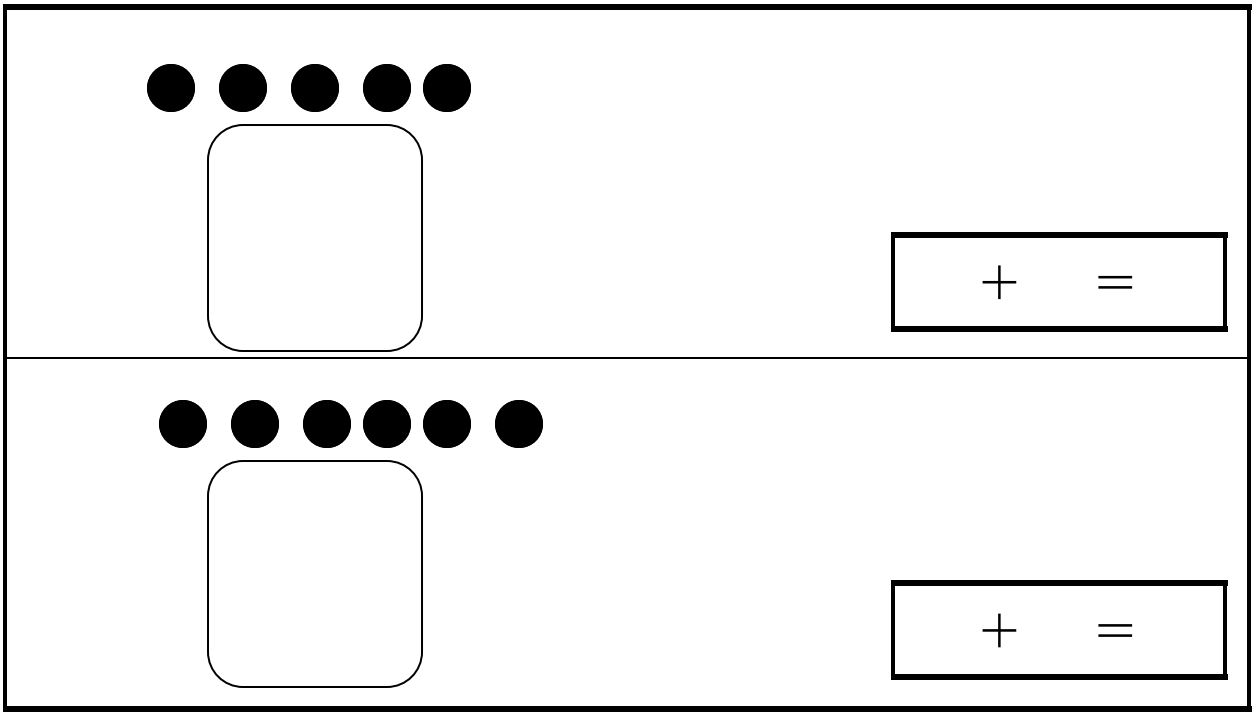


=

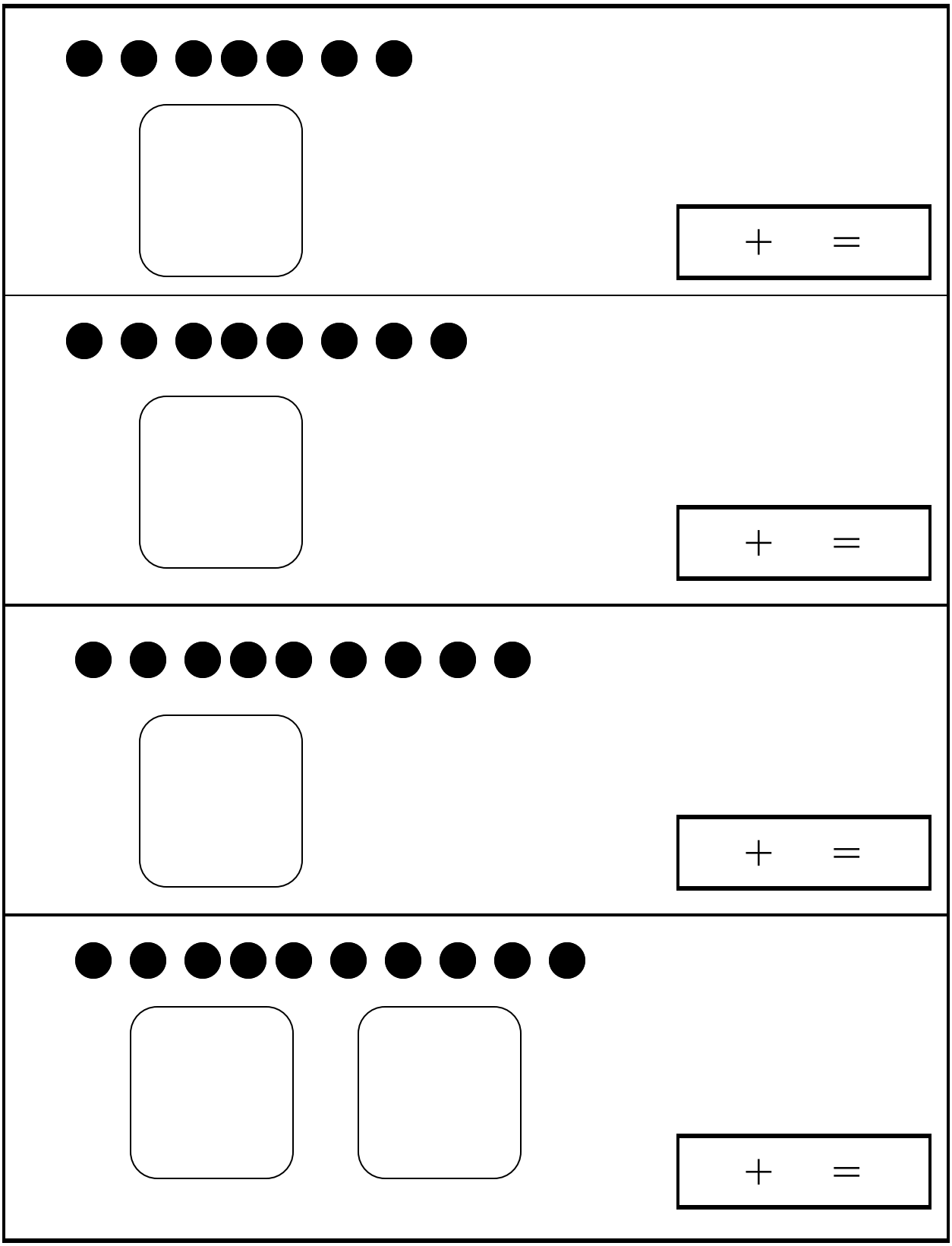
Groups of five for easier addition



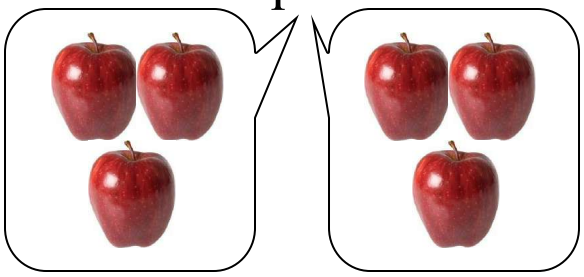
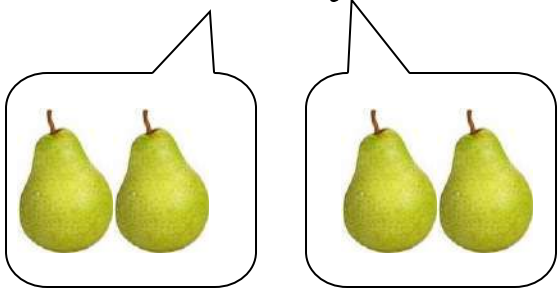
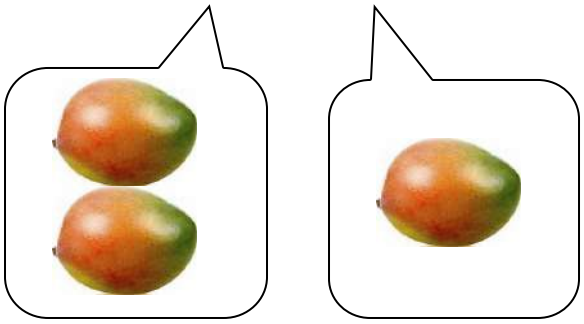
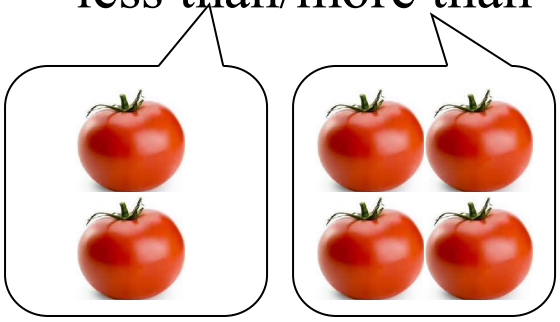
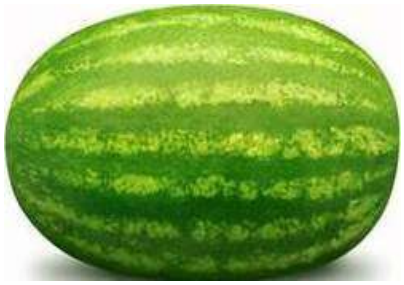
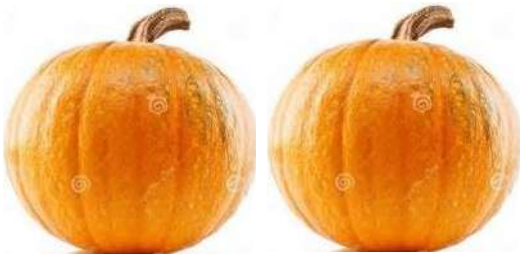
Do these.

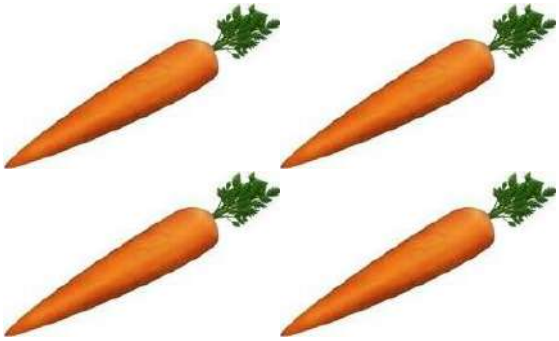
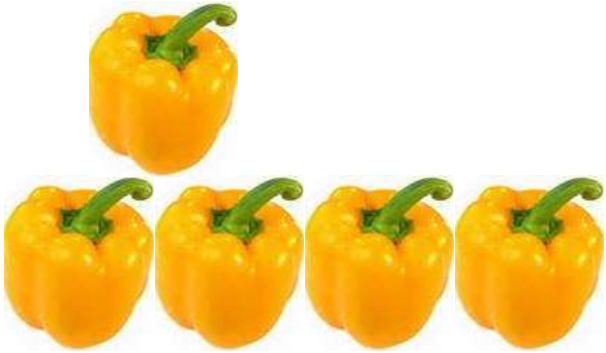
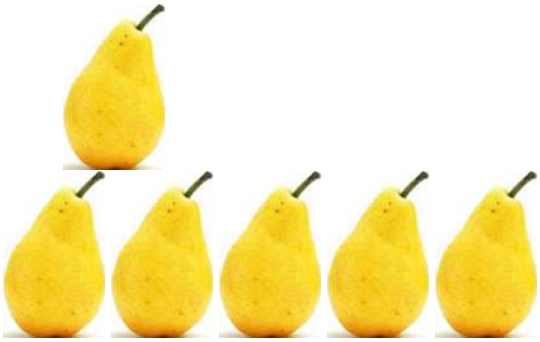
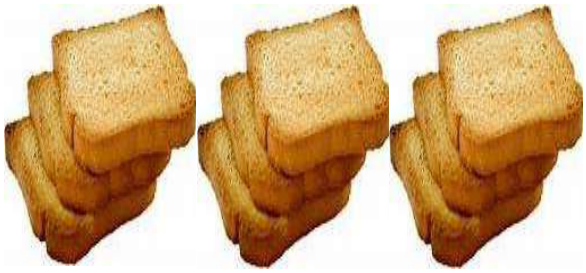
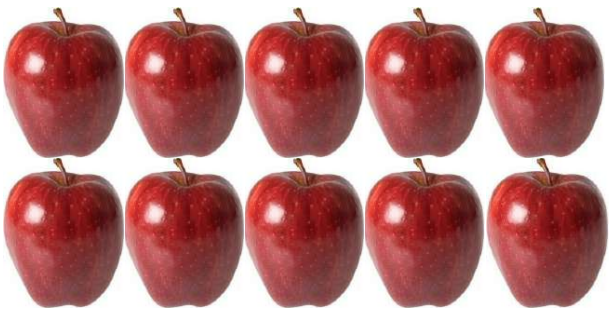


Do these.



VOCABULARY FOR NUMBERS

same	different
equal 	as many as 
more than/less than 	less than/more than 
one 1 	two 2 

three 3	four 4 
five 5 	six 6 
seven 7	eight 8
nine 9 	ten 10 

join

Joel joins Faith to watch TV. Now there is 2.

2

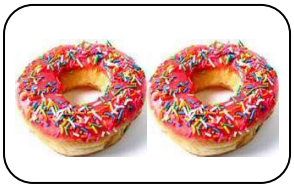
altogether

1 2 3 4

There is 4 **altogether.**

add

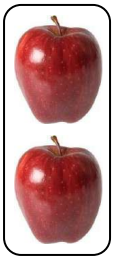
add



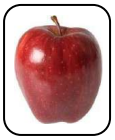
1 add **2**

1 add 2 is 3

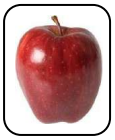
take away



take away



is

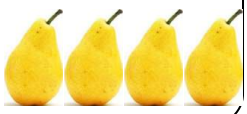


2 take away **1** is **1**

2 - 1 = 1

left

I have

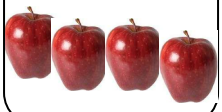


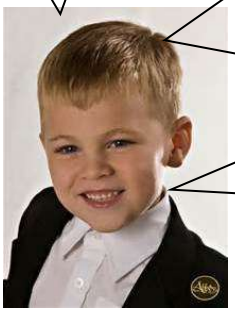
I shared with Faith, mummy and daddy.

I am left with

remain

I have



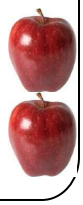


I shared with Faith, mummy and daddy.

I remain with

guess

Guess how many



3

No I have 2

before

1, 2

I am **before.**

I am **after.**

after

7, 8

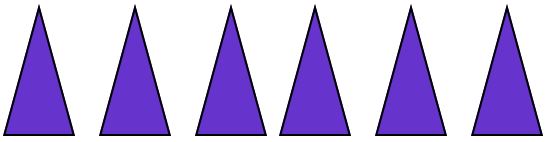
I am **before.**

I am **after.**

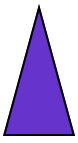
between

I am between Faith and mummy.

repeating unit



This is a pattern of triangles. The repeating unit is a triangle.



repeating unit

This is a pattern of milk boxes. The repeating unit is a box.

buy

Mummy buys fruits at the market.

sells

The lady sells carrots.

spends

Mummy spends money at the grocery.

how much

How much do I have?

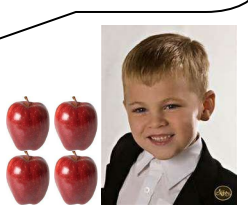
More than me

coins

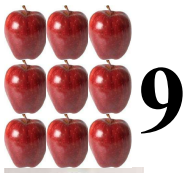
dollars

some

I have some apples.



few



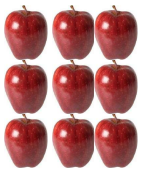
9

I have few apples.

3

many

I have many apples.

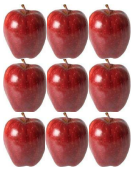


9

3

more

I have more apples.

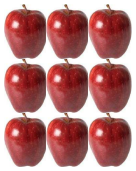


9

3

most

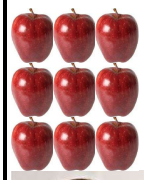
I have the most apples.



9

3

least



I have the least number of apples.

9

3

number

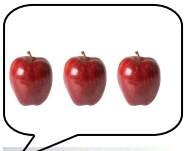
Number 9

9

Number 3

3

count



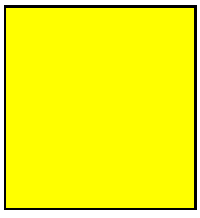
1, 2, 3. I have 3 apples.

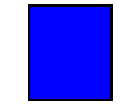
GEOMETRY
Plane shapes
Joel says a poem in class.

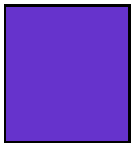
Plane is flat.
Flat is plane.
Plane means flat.
Flat means plane.

ACTIVITY: The teacher will show students plane shapes and say their names.

These are squares.





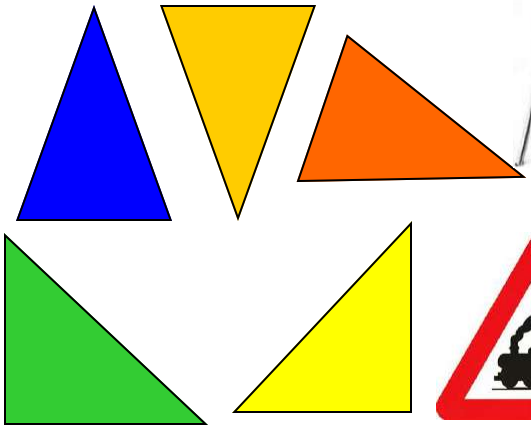


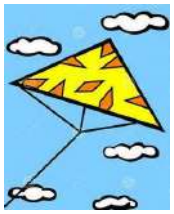
Joel's handkerchief

a wall

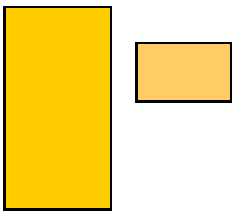
a tile

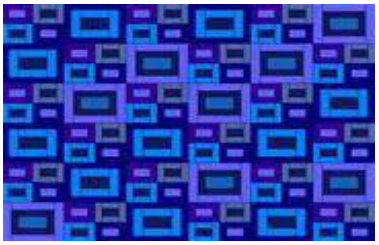
These are triangles.



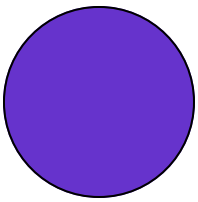


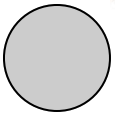
These are rectangles.

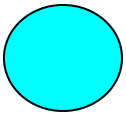




These are circles

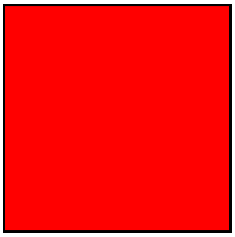




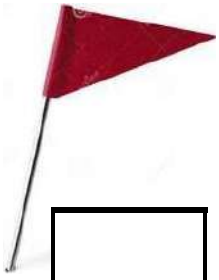


Write **s** next to the squares

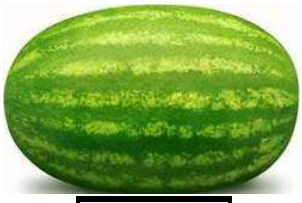
s

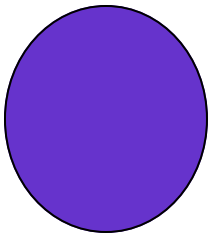


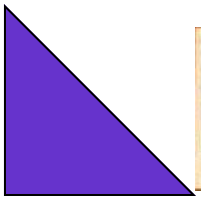
Write **t** next to the triangles.



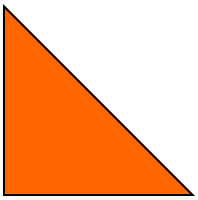
Write **r** next to the rectangles.

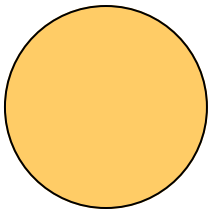


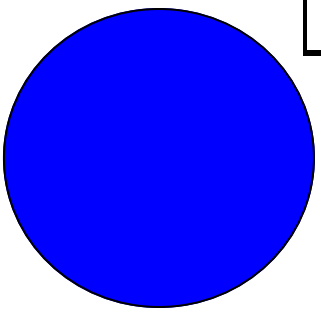




Write **c** next to the circles.

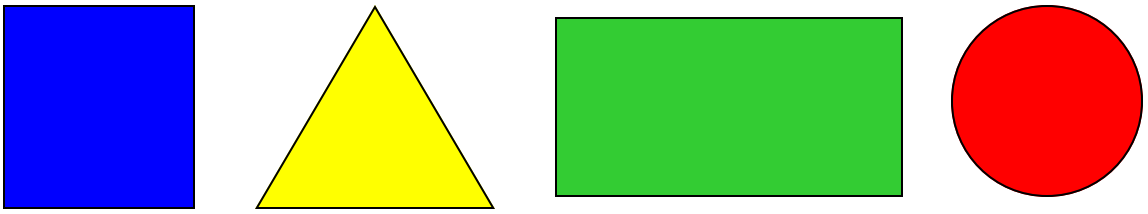






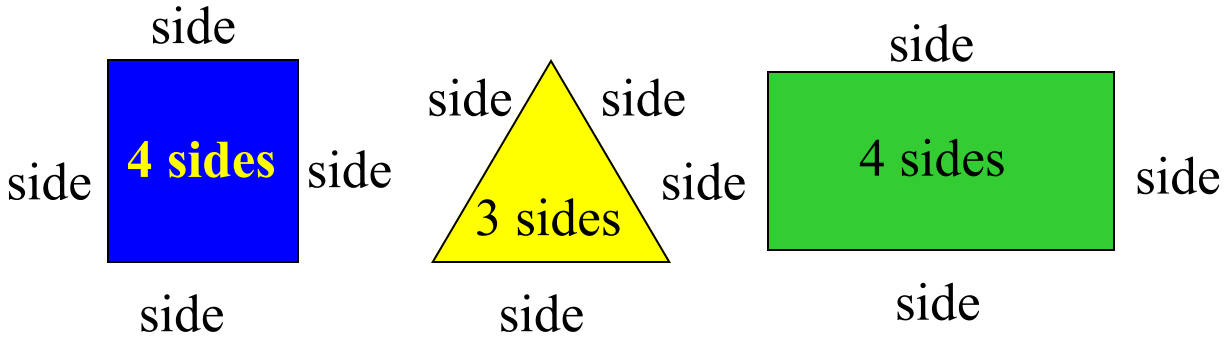
Properties of plane shapes

These shapes are flat (plane).

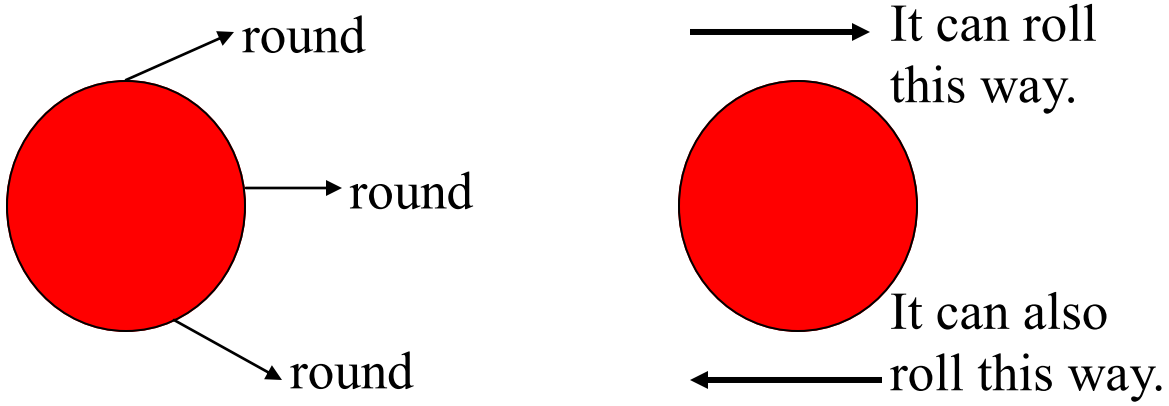


square triangle rectangle circle

These shapes have straight sides.

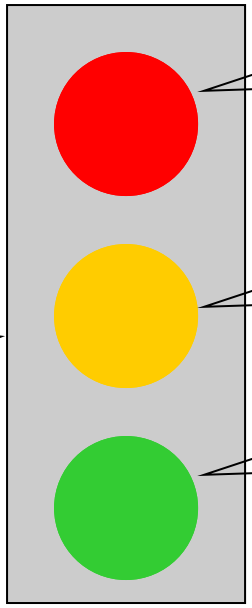


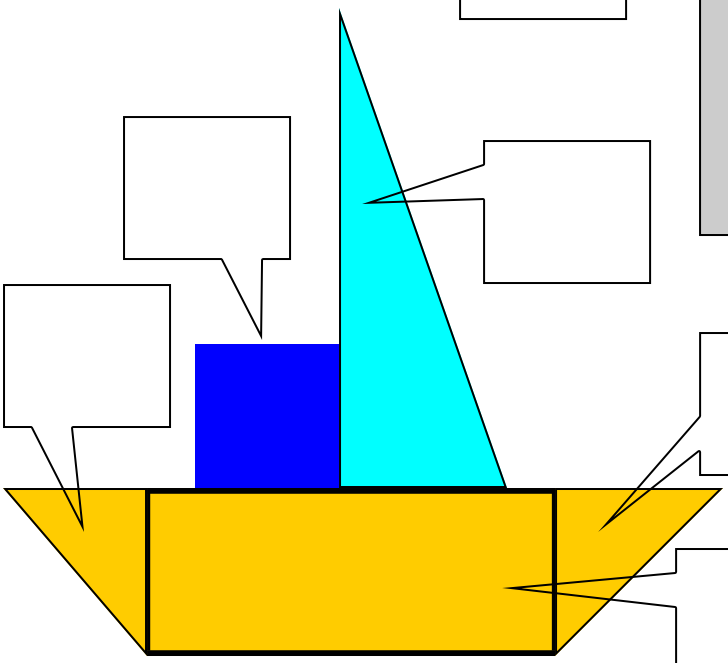
This shape is round. It can roll.

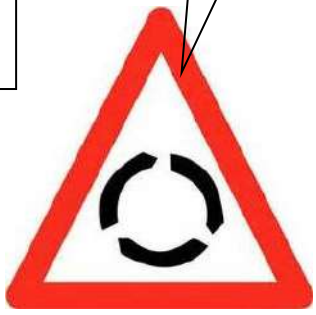


Models with plane shapes

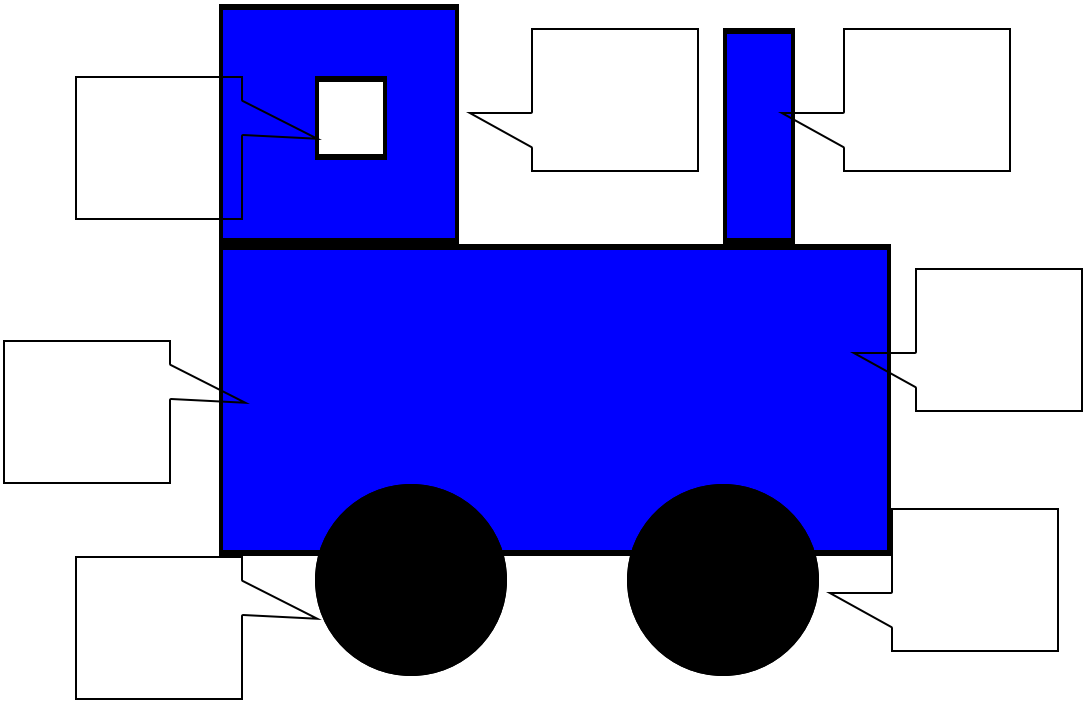
Write **s** for square, **t** for triangle, **r** for rectangle and **c** for circle.

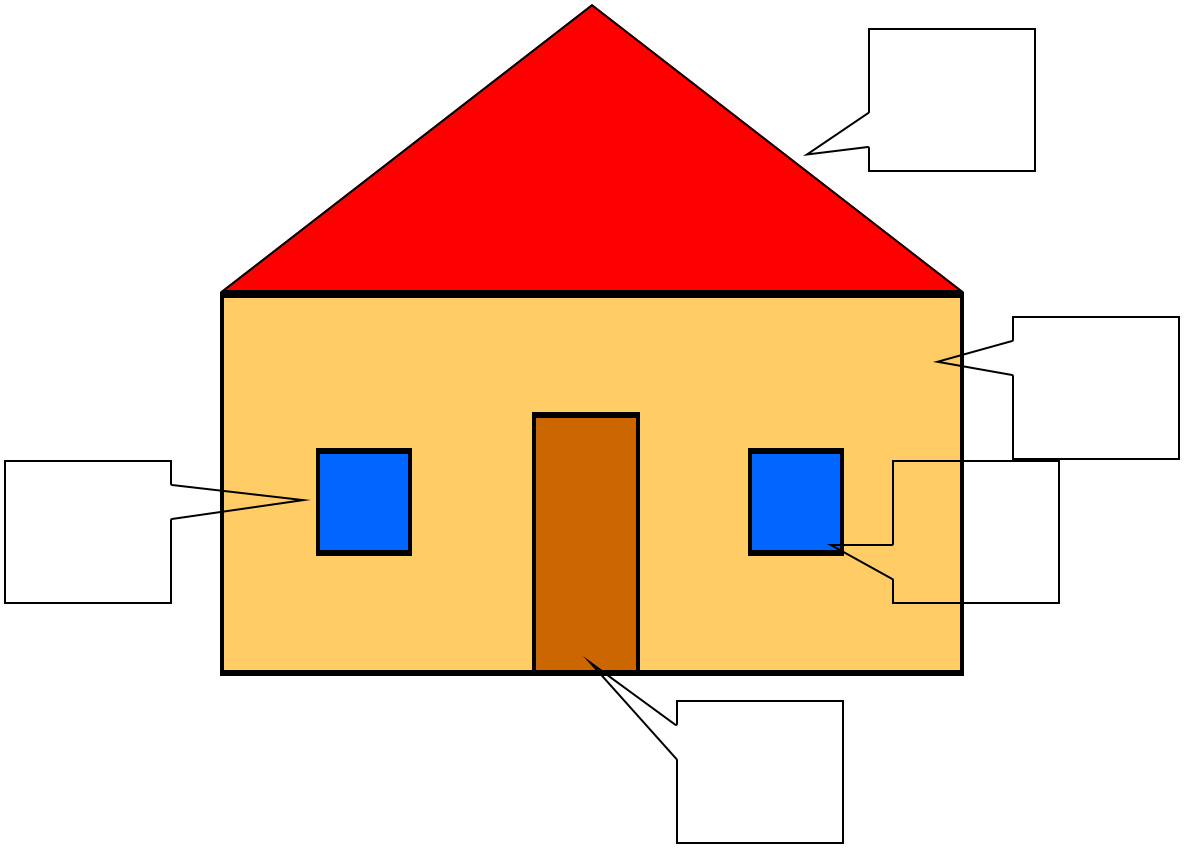






Write **s** for square, **t** for triangle, **r** for rectangle and **c** for circle.





Solids

These are boxes.

These are also boxes.

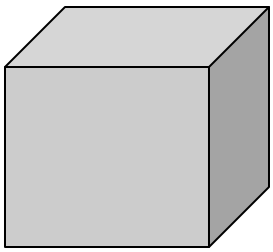
These are balls.

These are cans.

These are cones.

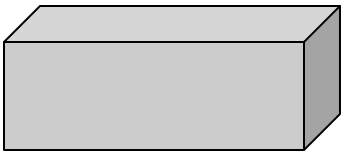
Special names for solids.

This is a cube.



These are cubes.

This is a cuboid.

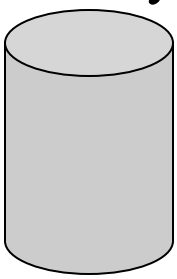


These are cuboids.

This is a sphere.

These are spheres.

This is a cylinder.

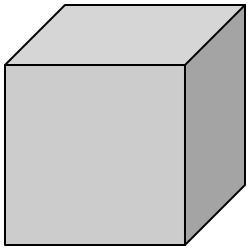


These are cylinders.

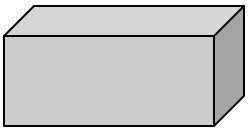
This is a cone.

These are cones.

Write **c** next to the cubes.

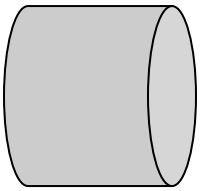


Write **c** next to the cuboids.



Write **s** next to the spheres.

Write **c** next to the cylinders.

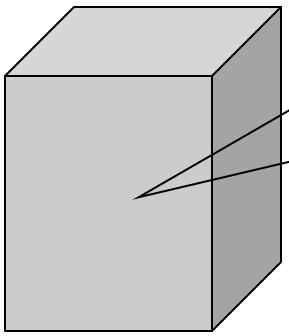


Write **c** next to the cones.

Properties of solids

ACTIVITY: The teacher will show students solids and talk about their properties.

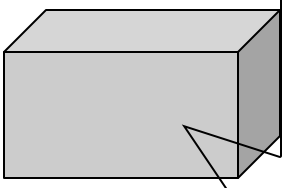
cube



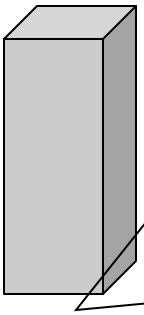
This is my face. It is flat.

I have 6 faces. All my faces are squares. They are the same size. My sides are straight. I am not round. I cannot roll.

cuboid



I have 6 faces. They are all flat. My sides are straight. I am not round. I cannot roll.



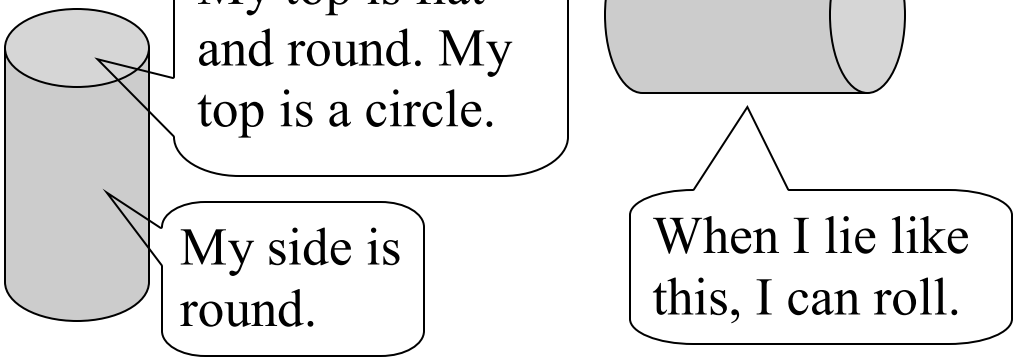
If I stand on this face, I still cannot roll.

sphere

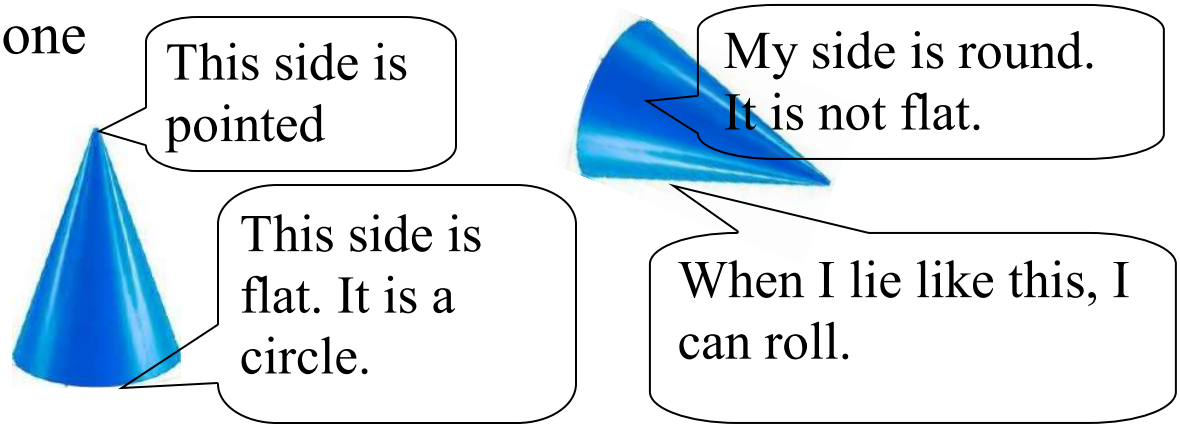
I am round, so I can roll. I am not flat. I am not pointed. I do not have straight sides.

We are also round.

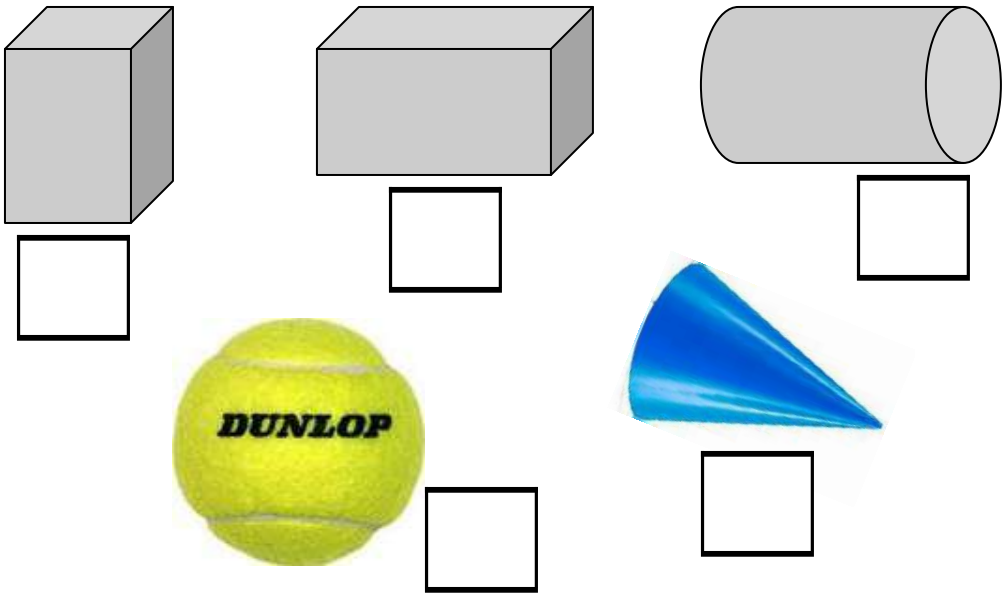
cylinder



cone

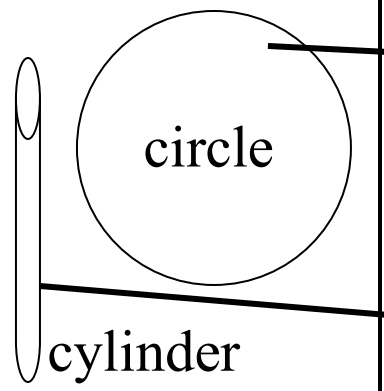
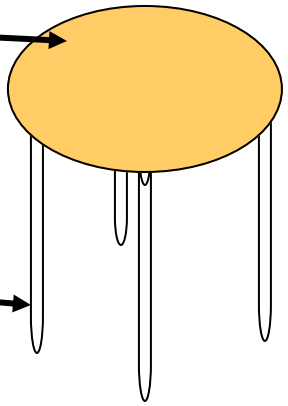
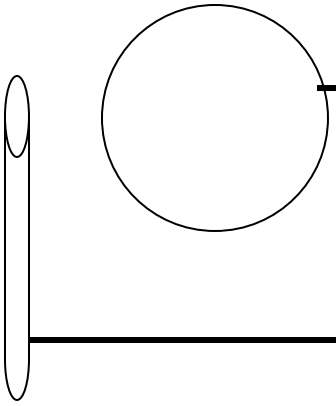
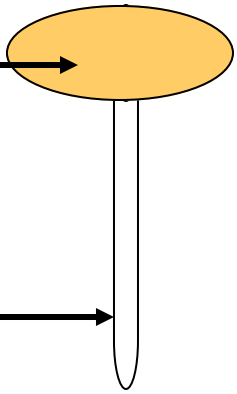
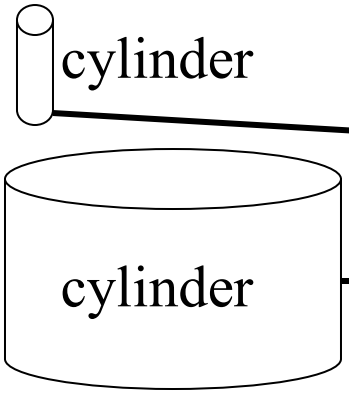
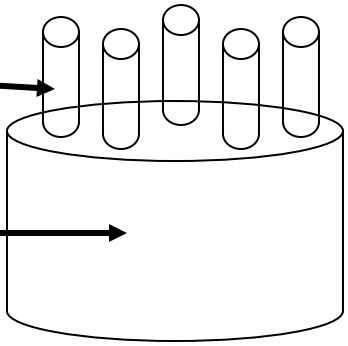


Write **r** next to the solids that can roll.

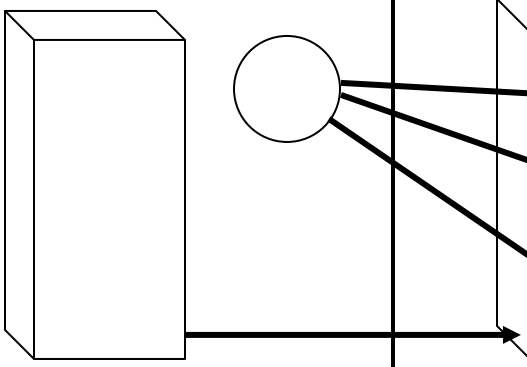
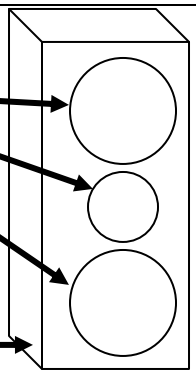
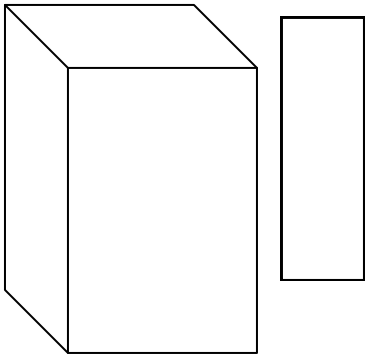
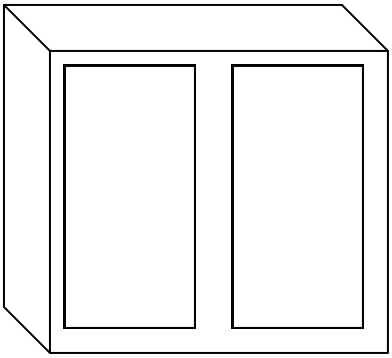
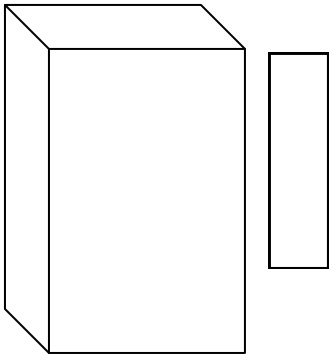
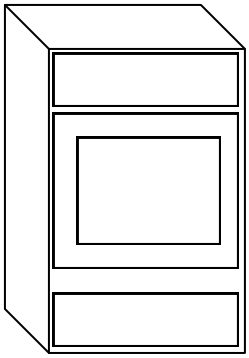
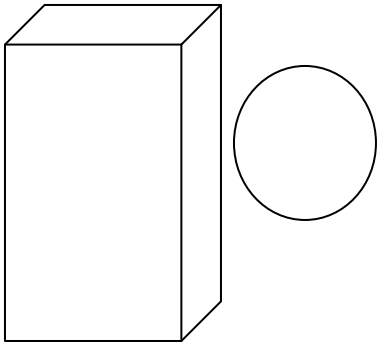
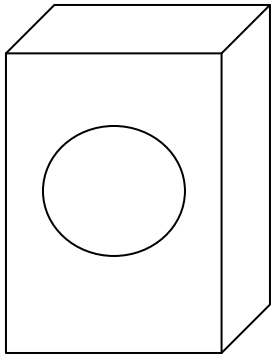


Models with solids

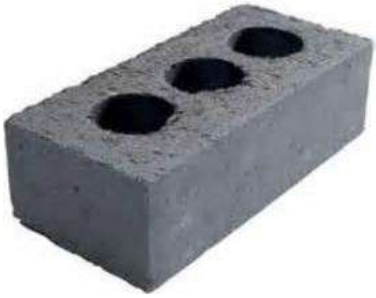
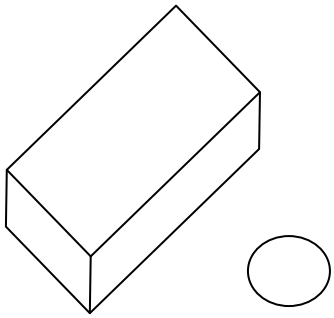
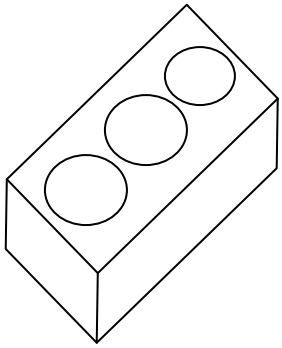
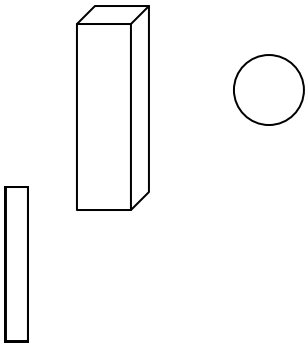
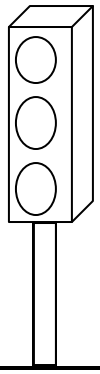
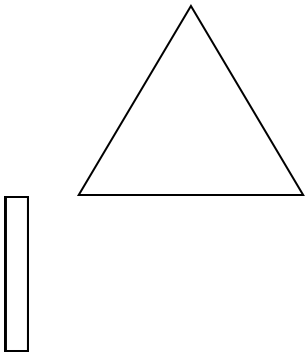
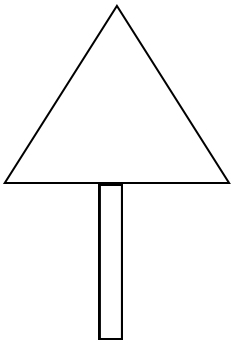
ACTIVITY: The teacher will show students solids and how to make models.

objects	shapes	models
		
		
		

Draw lines from the shapes to the model.

objects	shapes	models
		
		
		
		

Draw lines from the shapes to the model.

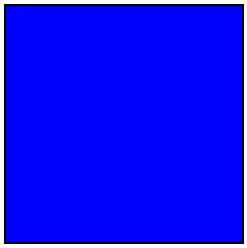
objects	shapes	models
		
		
		

2-D and 3-D shapes

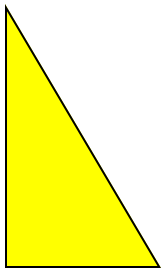
ACTIVITY: The teacher will show the class 2-D and 3-D shapes.

2-D shapes

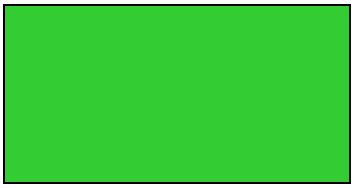
These shapes are flat. Remember Joel's poem.



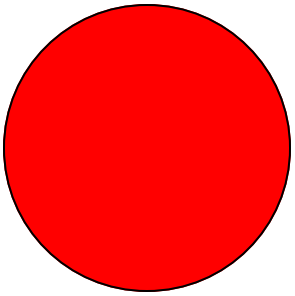
square



triangle



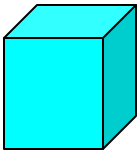
rectangle



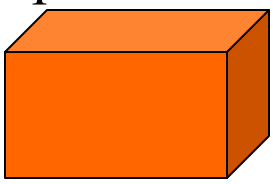
circle

3-D shapes

These shapes are solids.



cube



cuboid

sphere

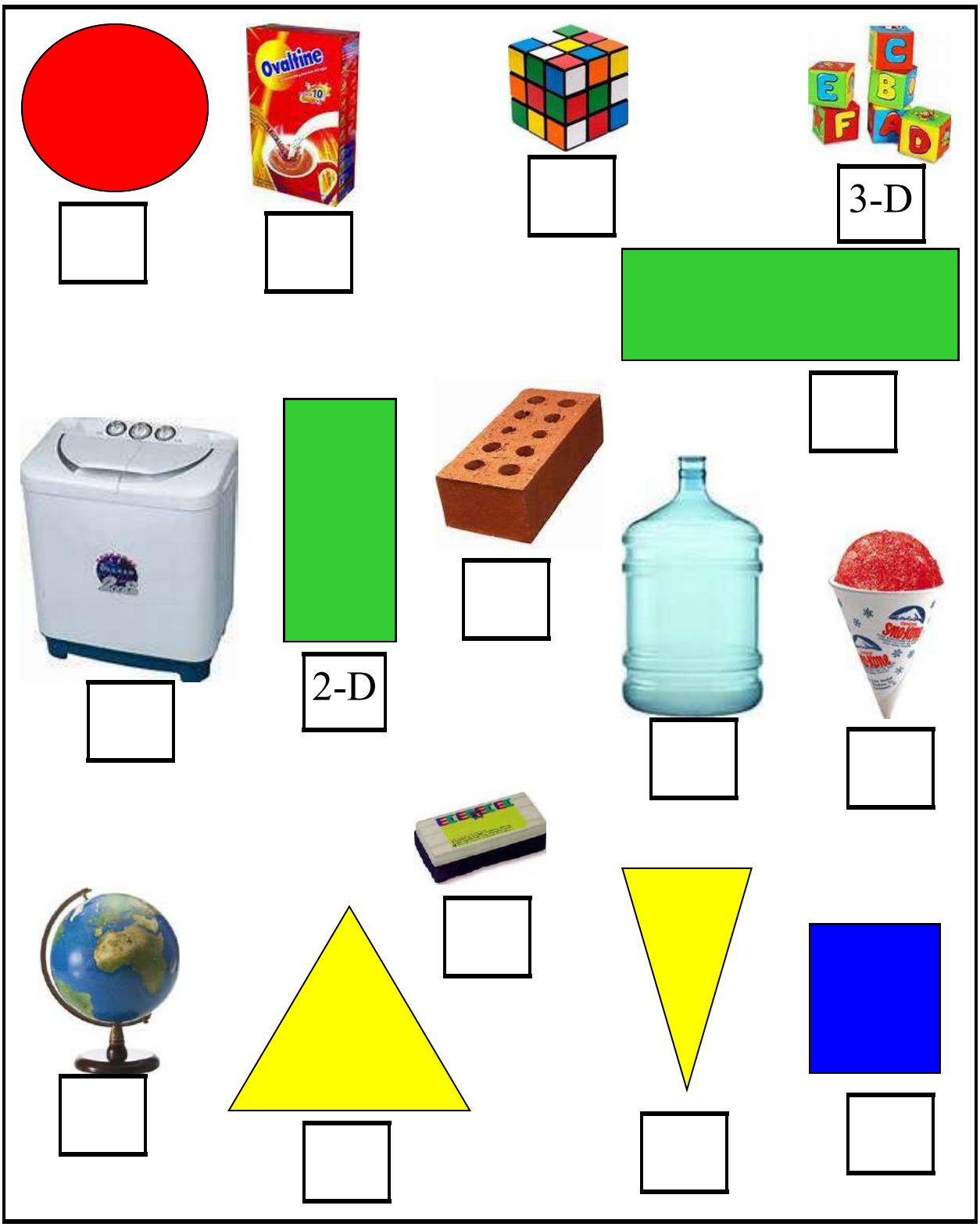
cone

These cannot roll. They are not round.

cylinder

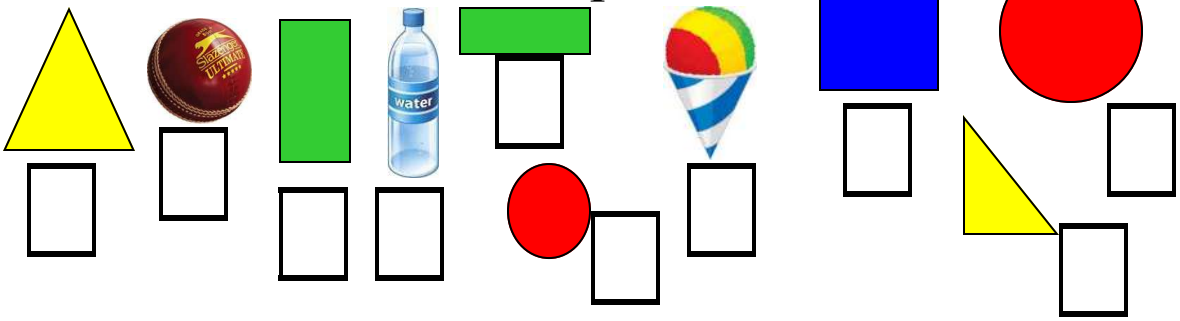
These shapes can roll. The cone and cylinder can roll when they lie like this.

Write **2 D** next to the plane shapes and **3 D** next to the solids.

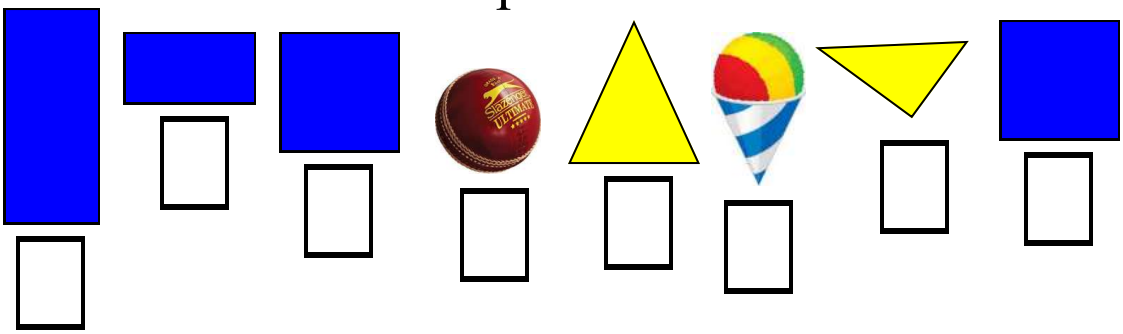


Comparing plane shapes

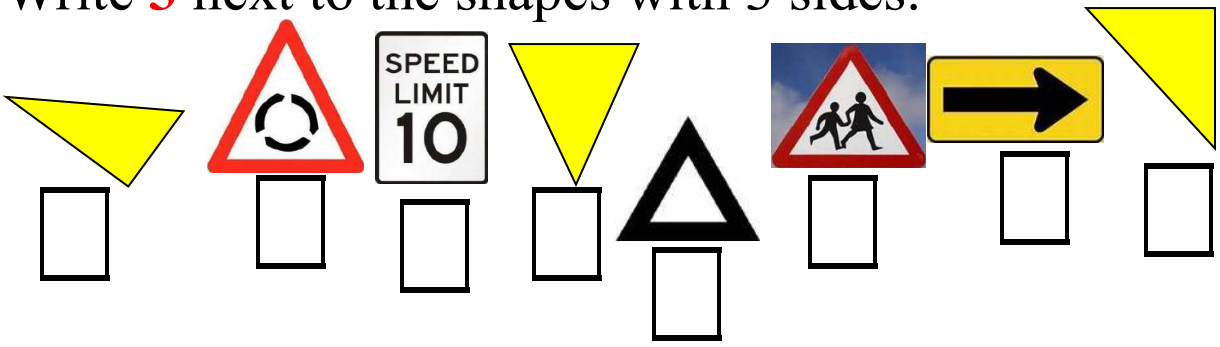
Write **f** next to the flat shapes.



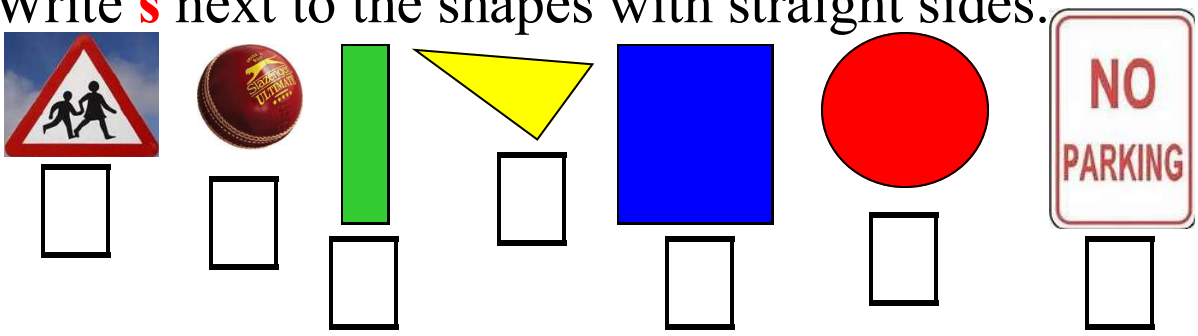
Write **4** next to the shapes with 4 sides



Write **3** next to the shapes with 3 sides.

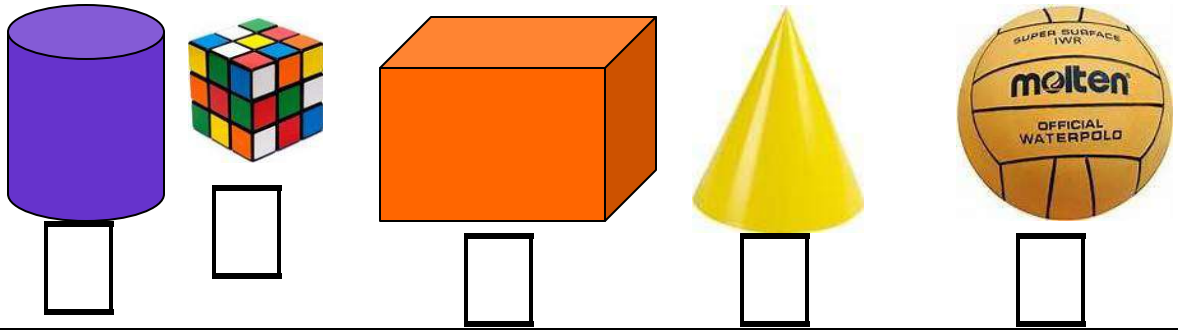


Write **s** next to the shapes with straight sides.

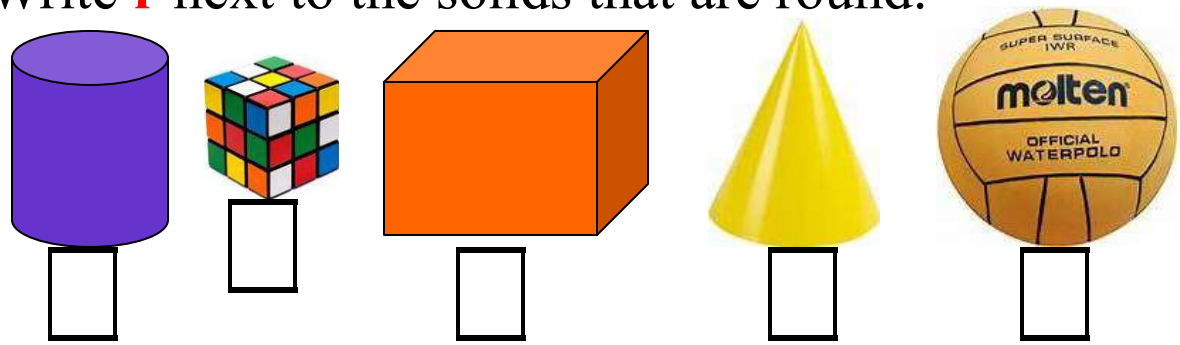


Comparing solids

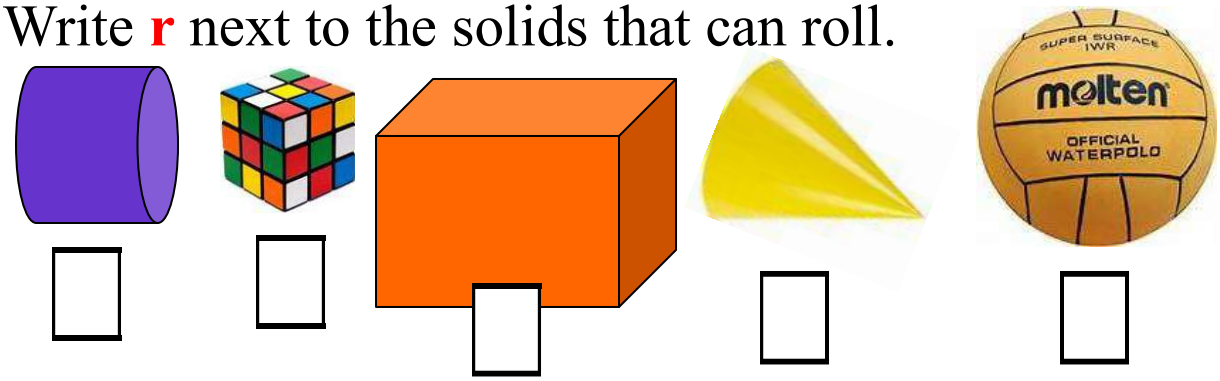
Write **f** next to the solids with a flat side.



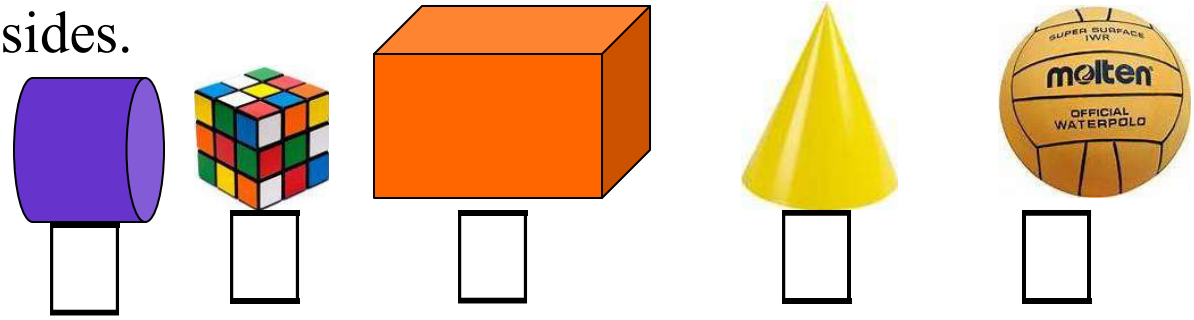
Write **r** next to the solids that are round.



Write **r** next to the solids that can roll.

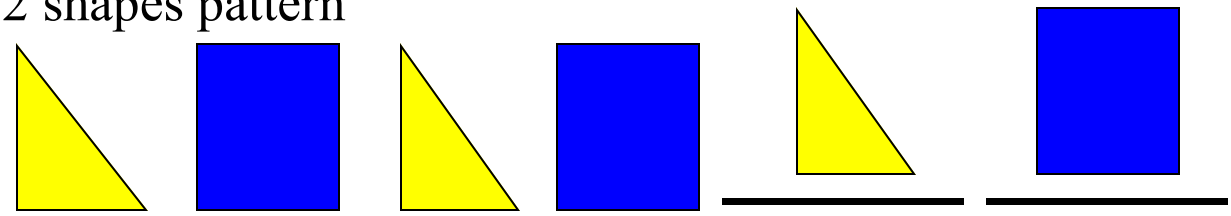


Write **s** next to the shapes where faces have straight sides.



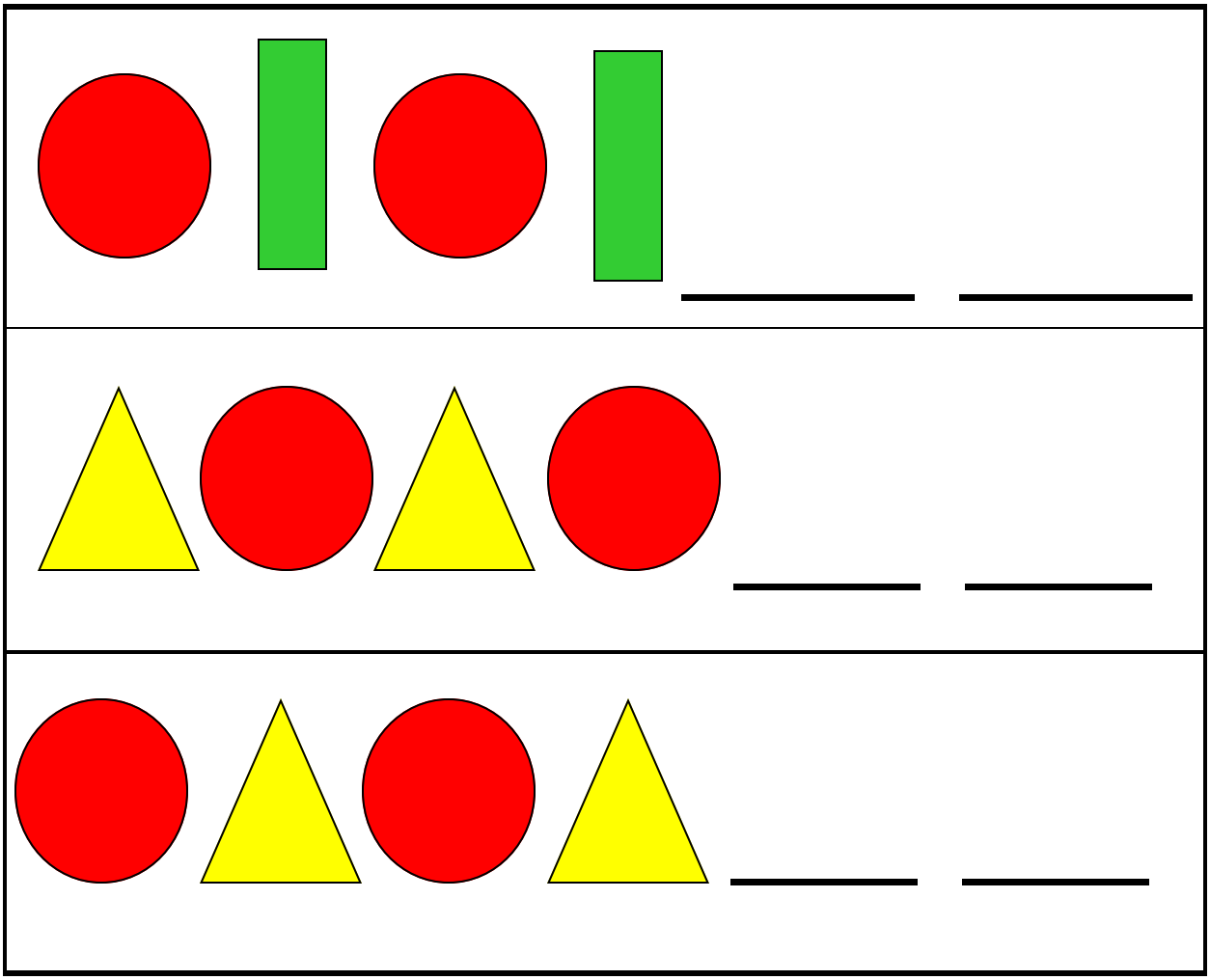
Geometrical patterns
Patterns with plane shapes

2 shapes pattern

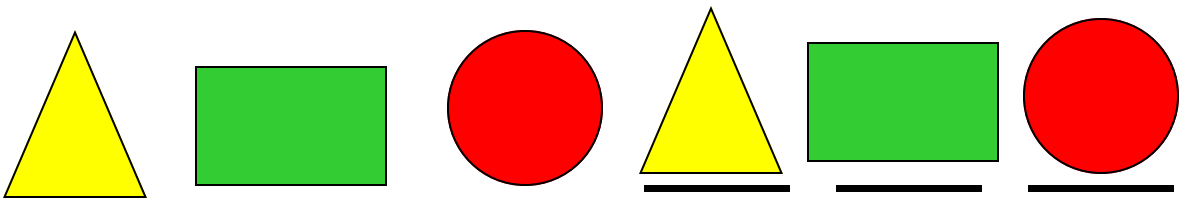


These are the next 2

Draw the next 2 shapes.

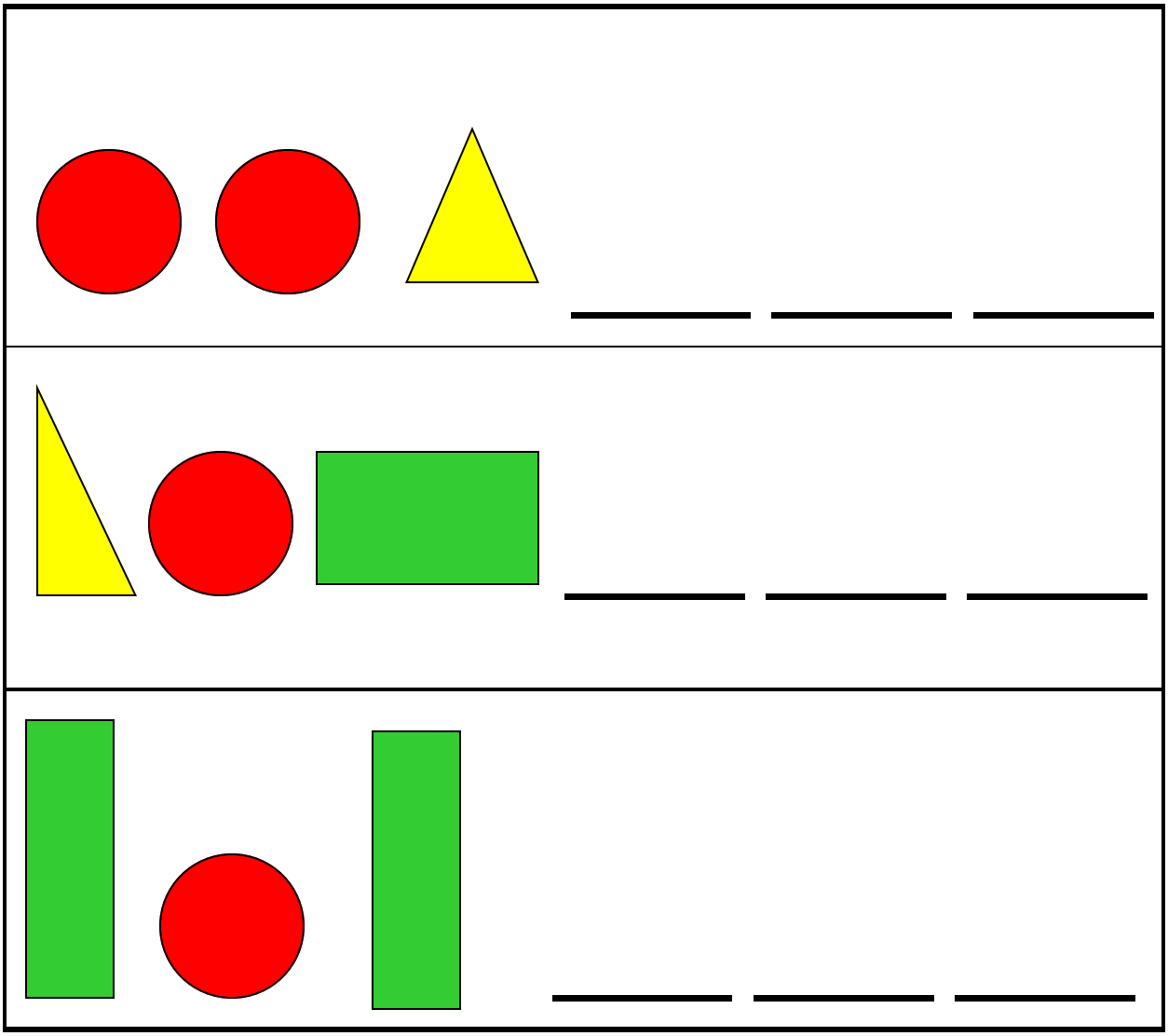


3 shapes pattern



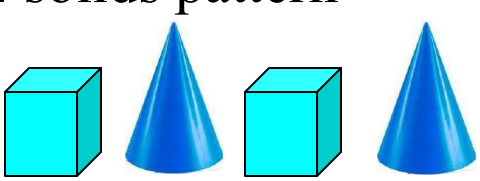
These are the next 3 shapes.

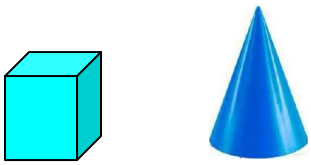
Draw the next 3shapes.



Patterns with solids

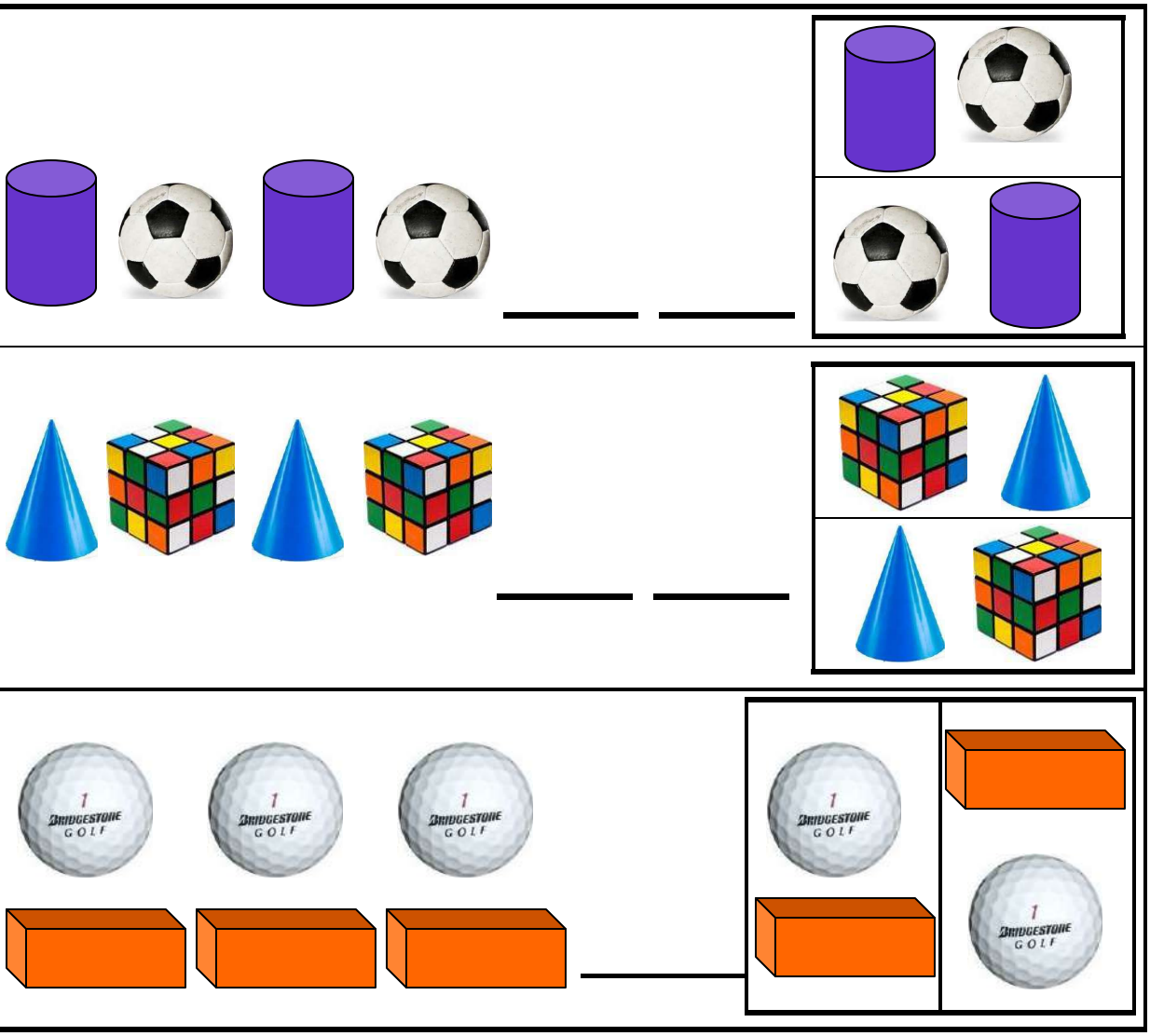
2 solids pattern





These are the next 2 solids

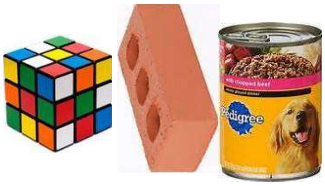
Circle the next two solids.



3 solids pattern

These are the next 3 solids

Circle the next 3 solids.



VOCABULARY FOR GEOMETRY

ball	can
box	block
cone	flat These tiles are flat.
not flat The top of the snow cone is not flat.	round The ball is round, so it can roll.

size

These do not have the same size.

tall

This water tank is tall.

short

The fridge is tall. The stove is short.

thin

Joel has a thin drinking straw.

thick

The rope is thick.

broad

This piece of wood is thin.

This piece of wood is broad.

big

This gift is big.

small

This gift is small.

narrow

This stove has a narrow top.

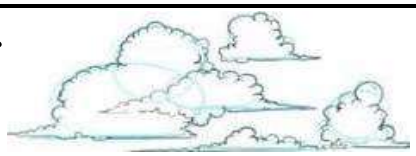
wide

This stove has a wide top.

on top of

next to

over



The clouds are over the house.

between

The ball is between.

underneath

The yellow book is underneath.

above

The Sun is above.

under

The ball is under the table.

up

He is up.

down

He is down.

on

Now the ball is on the table.

beside

The milo is beside the milk.

The milk is beside the milo.

in

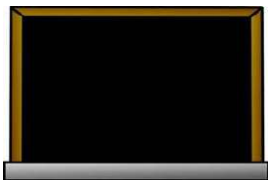
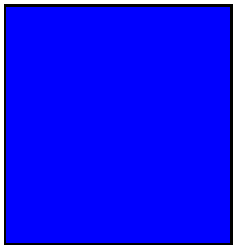
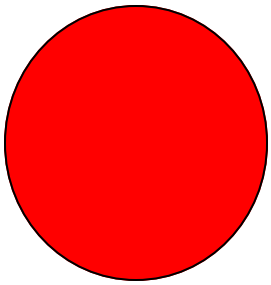
The ice cream is in the cone.

shape

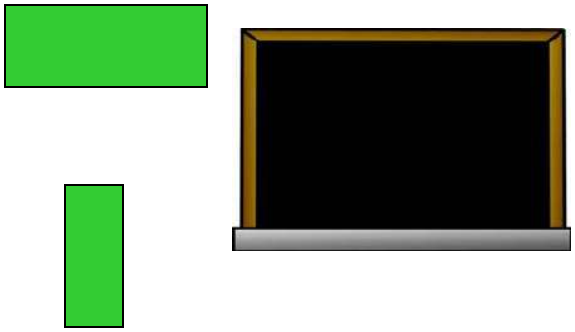
These solids have different shapes.

pointed

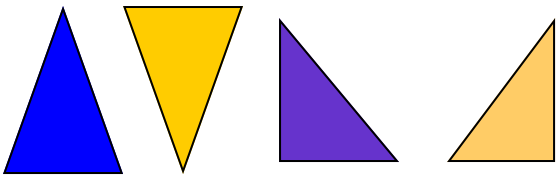
This side of the cone is pointed.

behind The ball is behind the duster.	in front of The duster is in front of the ball.
near 	far 
below It is in the below shelf.	same They are the same.
squares  	circles 

rectangles



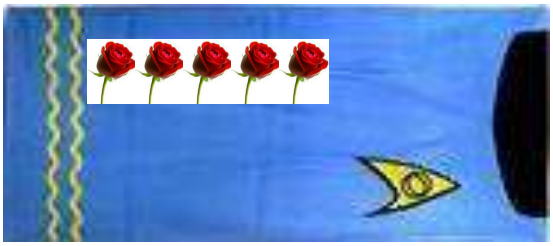
triangles



bottom

It is in the bottom shelf.

pattern



My towel has a pattern of roses.

repeat

This is a repeat pattern.

inside

The food is inside the box.

outside

The milo is outside the box.

in the middle

The ice cream is in the middle.

high 	higher
low 	lower
here 	there
far from 	close to

MEASUREMENT

Length

Length is from one end to the other end.

ACTIVITY: The teacher will show the class lengths of objects and how to measure these with a ruler.

<table>
<tr>
<td>length of pencil

length of eraser</td>
<td>length of caramel

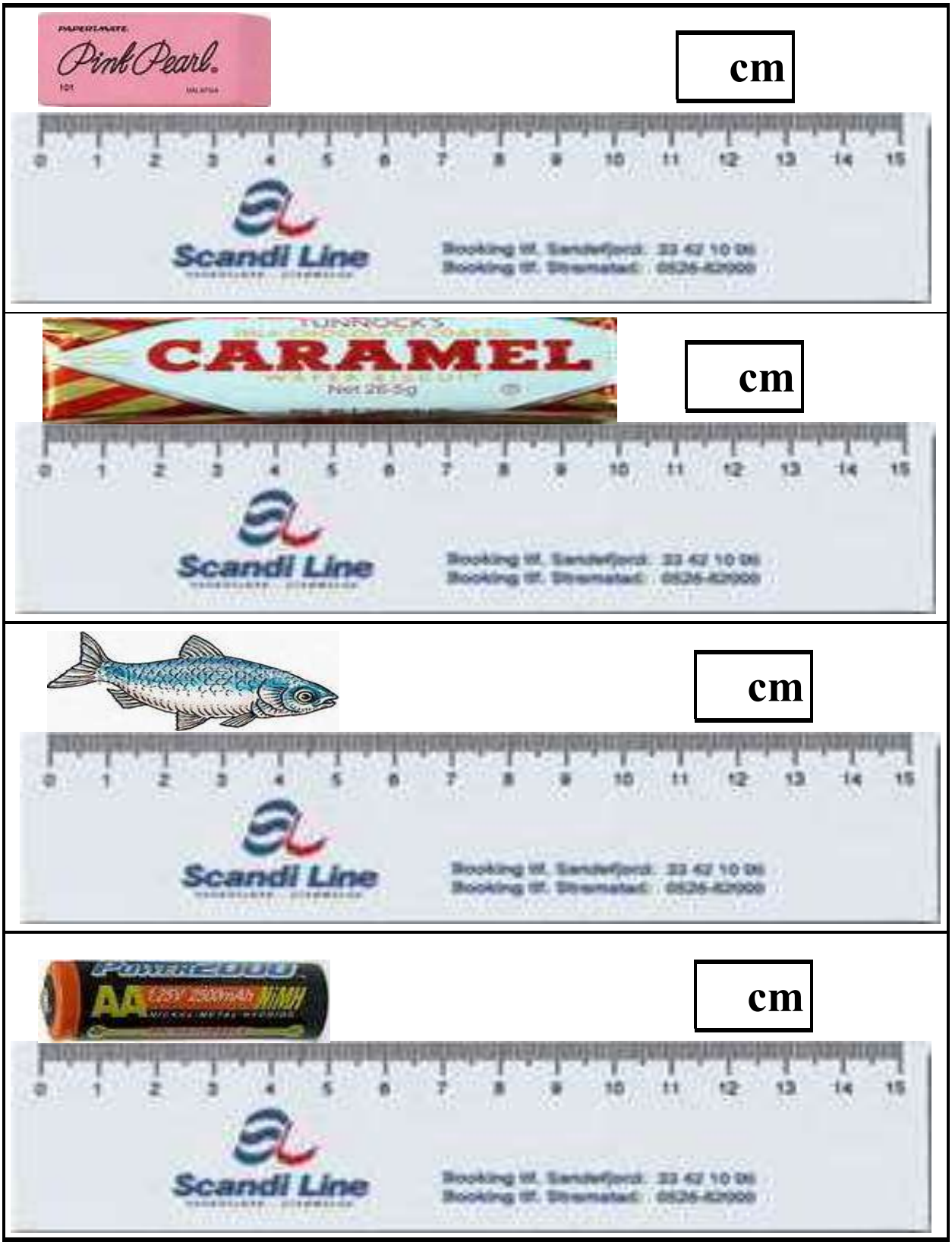
length of box</td>
</tr>
<tr>
<td>length of shark

length of dolphin</td>
<td>length of laptop

length of table</td>
</tr>
</table>

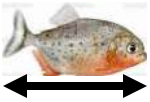
The length of the pencil is 7 cm.

Write the length of these.



Long and short

The shark is long.

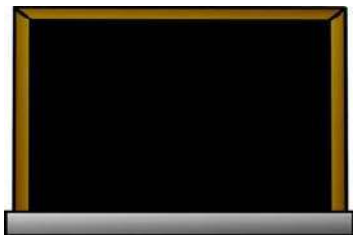


The fish is short.

This umbrella is long.

This umbrella is short.

Write **l** for long and **s** for short.



Longer and shorter

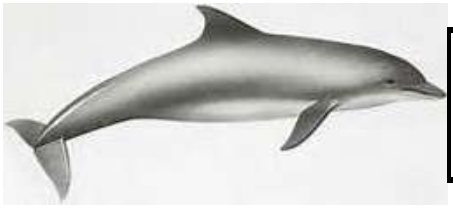
The shark is longer.

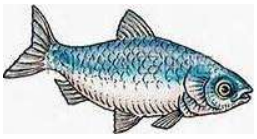
The fish is shorter.

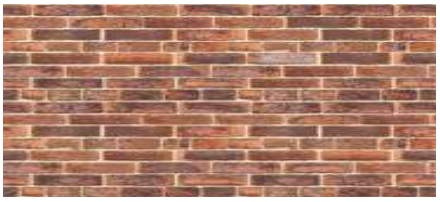
This umbrella is longer.

This umbrella is shorter.

Write **l** for longer and **s** for shorter.







Short and shorter

short

shorter

short

shorter

Write **s** for short and **r** for shorter.

Long and longer

A long piece of wood.

A longer piece of wood.

long

longer

Write **l** for long and **r** for longer.

Tall and taller

tall

taller

tall

taller

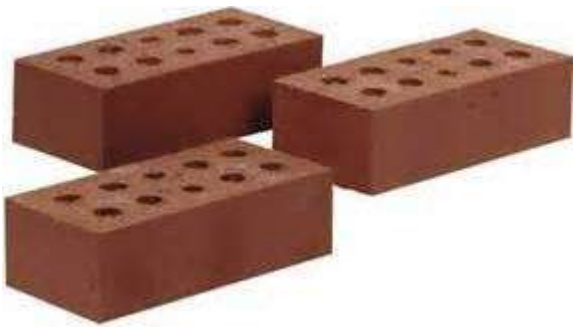
Write **t** for tall and **r** for taller.

As long as (same length)

The green board is **as long as** the black board.

The keboard is **as long as** the tool box.

Write **yes** if one is **as long as** the other.



Wide and narrow

a wide bookcase

a narrow bookcase

a wide floor

a narrow floor

Write **w** for wide and **n** for narrow.

Thin and fat

I am thin

I am fat

thin

fat

Write **t** for thin and **f** for fat.

Deep and shallow

The boat is in the deep water.

The birds are in the shallow water.

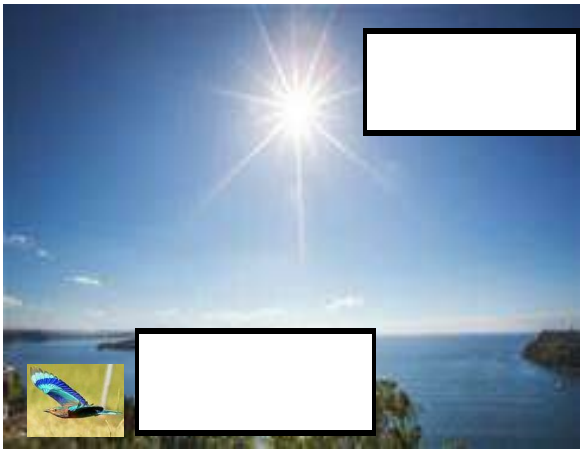
The ship is in the deep water.

The horse is standing in the shallow water.

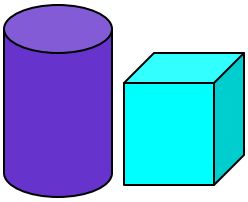
Write **d** for deep and **s** for shallow.

High and low

Write **high** or **low** in the boxes.



Near and far



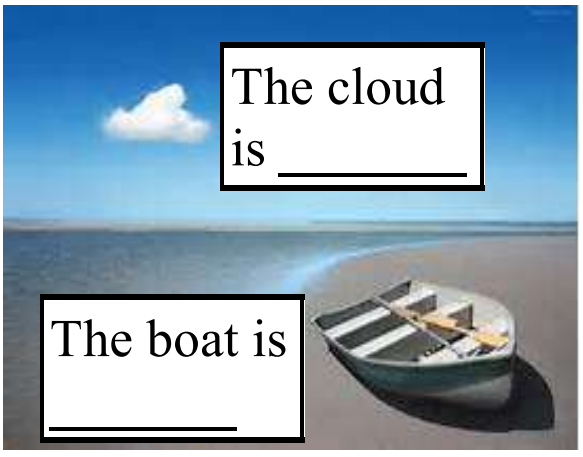
These solids are

near

These solids are

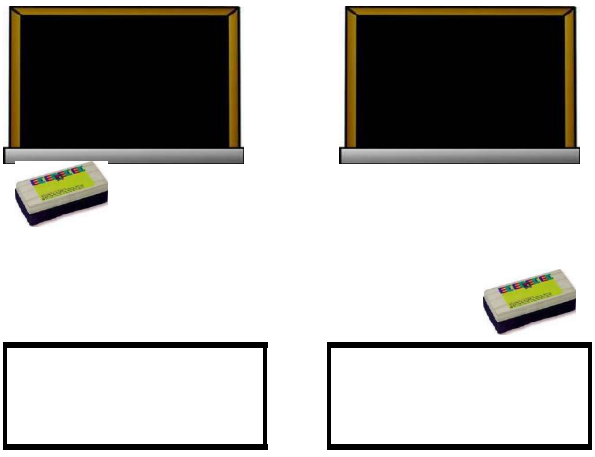
far

Write **near** or **far.**



The cloud is _____

The boat is _____



Mass

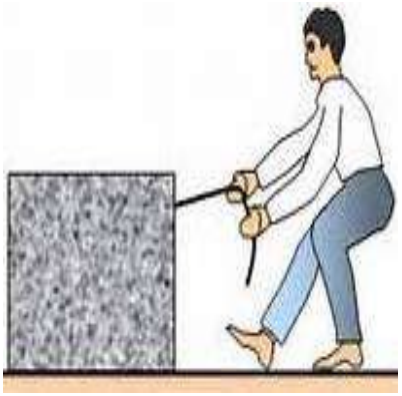
Light and Heavy

ACTIVITY: The teacher can use a scale to find the mass of individual students at the front of the class. The teacher can show the students that the mass of objects in the class can also be found.

Light

She is **lifting** the balloons.	She is **pushing** the balloons.	She is **pulling** the balloons.

Heavy

		
She is trying to **lift** the box.	He is trying to **push** the box.	He is trying to **pull** the box.

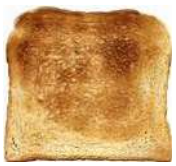
heavy

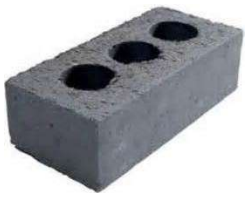
light

light

heavy

Write **light** or **heavy.**





Heavy and heavier

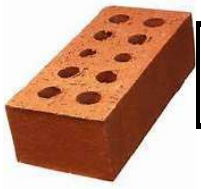
heavy

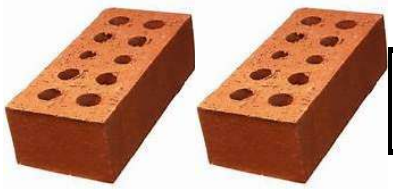
heavier

heavy

heavier

Write **h** for heavy and **r** for heavier.





Light and lighter

light

lighter

light lighter

Write **l** for light and **r** for lighter.

Easy to push and hard to push

easy to push

hard to push

easy to push

hard to push

Write **e** for easy to push and **h** for hard to push.

Easy to pull and hard to pull

easy to pull

hard to pull

easy to pull

hard to pull

Write **e** for easy to pull and **h** for hard to pull.

Weight

Both mangoes have the **same weight**.

Both girls have the **same weight**.

Write **s** for same weight and **d** for different weight.

Light and heavy
Lighter and heavier

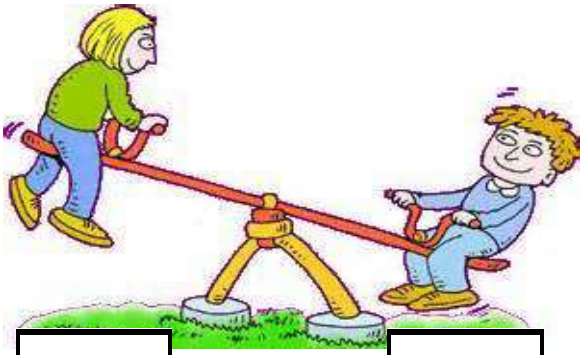
heavy or heavier

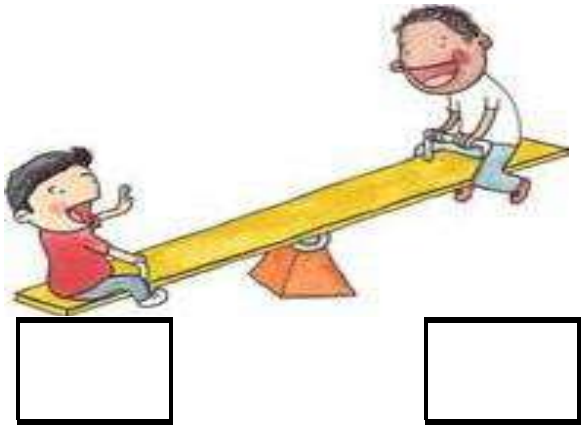
light or lighter

light or lighter

heavy or heavier

Write **l** for light/lighter and **h** for heavy/heavier.





TIME
Day and night

Day. It is sunny today.

Night. The moon is out.

Write **d** for day and **n** for night.

Time of day: sequence of activities

Good morning. She is eating breakfast.

It is lunch time. She is eating lunch in School.

Good afternoon. The students play a game.

Good evening. Joel and his cousin look at TV.

Good night. Joel is sleeping.

Morning comes first.

_____

1. Which is second?

_____

2.Which is third?

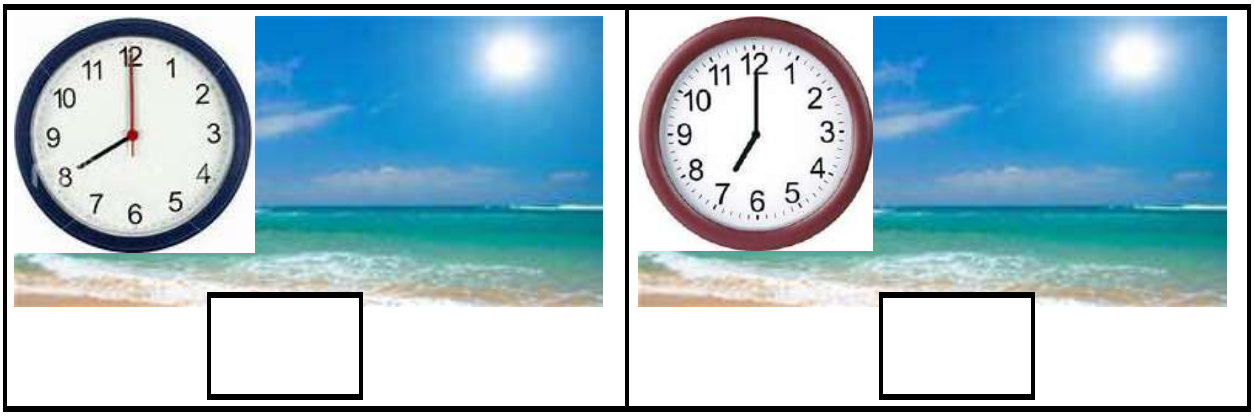
_____

3. Which is last?

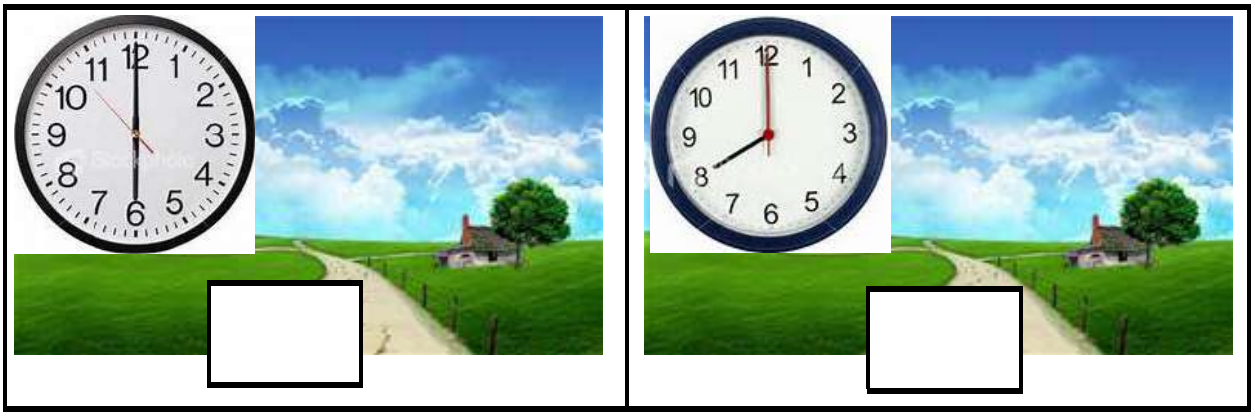
_____

Early and earlier

Write **e** for early and **r** for earlier.

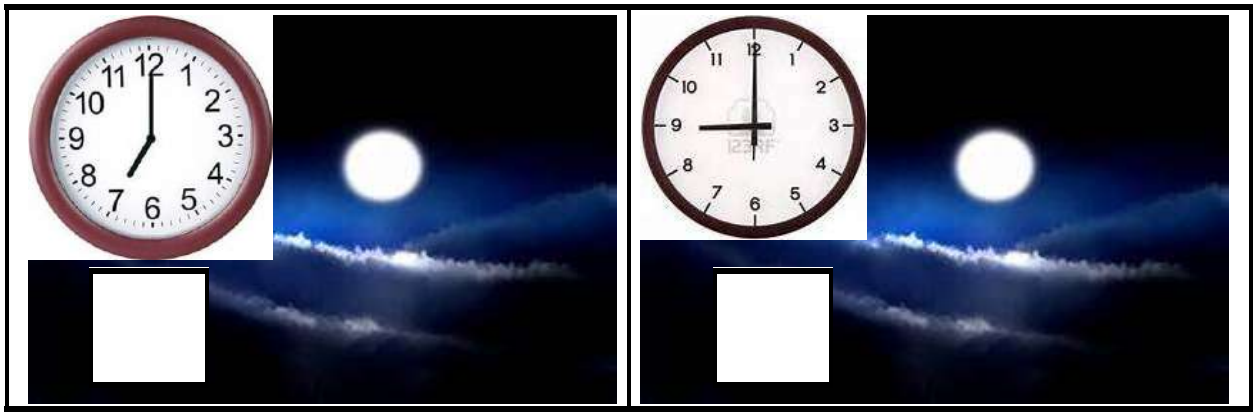


Write **e** for early and **r** for earlier.

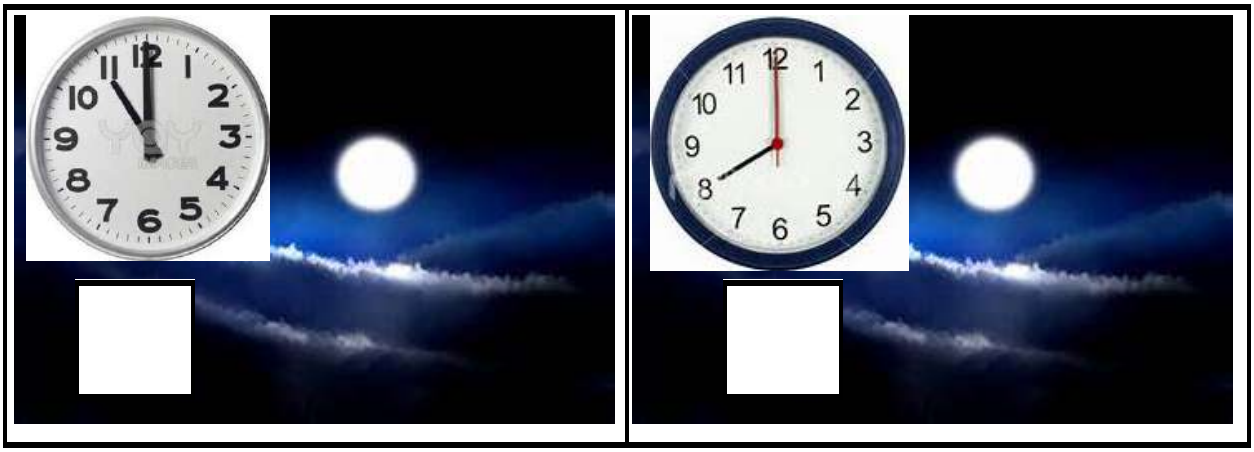


Late and later

Write **l** for late and **r** for later.



Write **l** for late and **r** for later.



Short time and long time

He takes a short time to drink his milk.

She takes a long time to eat her breakfast.

Write **s** for short time and **l** for long time.

Write **s** for short time and **l** for long time.

VOCABULARY FOR MEASUREMENT

short

shorter

long rope

longer rope

tall

taller

same length or
as long as

wide river

narrow
river

thin

fat

deep
water

shallow
water

high

low

length

length

mass

The mass of apples.

mass

The mass of the boy.

mass

The mass of the baby elephant.

heavy

heavier

same weight

same weight

heavy weight

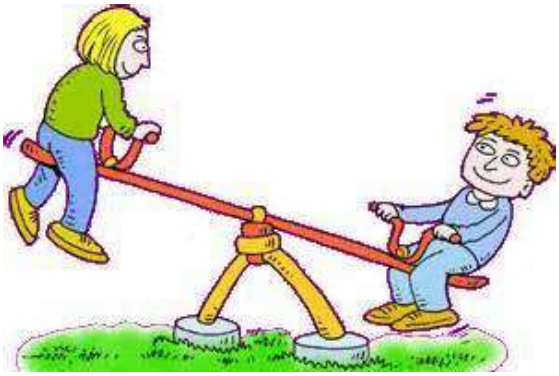
light weight

heavy weight

light weight

light weight

heavy weight



light weight

heavy weight

light

lighter

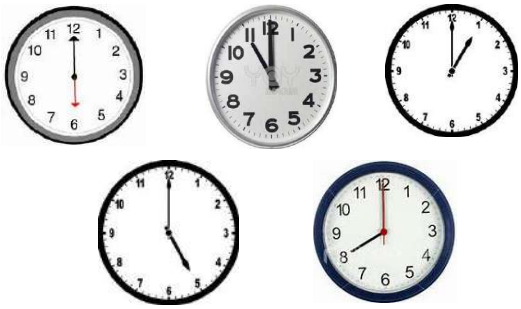
easy to push

hard to push

easy to pull

hard to pull

time



morning

midday

afternoon

evening

day

night

short time

long time

heavy

light

STATISTICS

Sorting and Grouping

ACTIVITY: The teacher will call ten students to the front of the class and sort them into groups, e.g. a group of boys, a group of girls, a group with black pencils, a group with short hair, a group with long hair, etc.

Count

1

2

3

4

5

6

7

8

9

10

Sort and group

4 boys

1 2 3 4

1 2 3 4 5 6

6 girls

1. How many boys? _____

2. How many girls?_____

3. How many altogether?_____

4. More girls than boys. Yes/No

5. Less boys than girls. Yes/No

Put them in a table.

boys	girls
1	1
2	2
3	3
4	4
	5
	6
4 boys	6 girls

Object chart (horizontal with grids)

pens					
pencils					
erasers					
sharpeners					

Objects in class.

1. There are _____ pencils.

2. There are _____ sharpeners

3. How many pens? _____

4. How many erasers? _____

5. There are _____ pencils and _____ sharpeners.

Object Chart (vertical with grids)

pens	pencils	erasers	sharpeners

Objects in class.

1. There are _____ pencils.

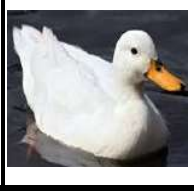
2. There are _____ sharpeners

3. How many pens? _____

4. How many erasers? _____

5. There are _____ pencils and _____ sharpeners.

Picture Chart (horizontal with grids)

bears					
tigers					
rabbits					
birds					
ducks					

Animals at the zoo.

1. How many birds? _____
2. How many ducks? _____
3. How many bears? _____
4. There are _____ tigers and _____ rabbits.
5. There are _____ birds and _____ ducks.
6. How many bears and rabbits altogether? _____
7. How many tigers and rabbits in all? _____

Picture chart (vertical with grids)

cars	buses	bicycles	helicopters	aeroplanes

Transport

1. How many helicopters? _____
2. How many buses? _____
3. There are _____ cars and _____aeroplanes.
4. How many helicopters and aeroplanes altogether?

   _____
5. There are two bicycles. Yes/No

Object Chart (horizontal without grids)

milo				
smalta				
flour				
milk				
red beans				

At the grocery.

1. How many tins of milo?_____
2. How many bags of flour? _____
3. Four bottles of _____.
4. _____ tins of red beans.
5. How many bottles of smaltas and packs of milk altogether? _____

Object chart (vertical without grids)

cups	plates	spoons	pots	bowls

In the kitchen.

1. How many plates? _____

2. How many cups and plates in all?_____

3. _____ pots and _____ bowls.

4. Add the number of pots and bowls. _____

Picture Chart (horizontal without grids)

shirts

ties

belts

skirts

bags

At the clothes store.

1. How many bags did mummy buy?_____

2. How many skirts did mummy buy? _____

3. Daddy bought _____ties and _____ shirts.

4. How many belts did Joel buy?_____

5. How many things altogether did they buy? _____

Picture Chart (vertical without grids)

buckets	flags	starfish	boats	lifeguards

At the beach.

1. How many starfish did Joel get? _____

2. How many flags did Faith see? _____

3. There are _____ flags and _____ boats.

4. Joel saw _____ lifeguards.

5. Joel took _____ buckets to collect starfish.

ACTIVITY: The teacher will call 10 students with their bags to the front of the class. He/ she will sort them into groups of bag colours.
Draw the bags in the object chart. Then colour the bags.

Object Chart for bag colours

black				
blue				
red				
yellow				

1. How many black bags?_____

2. How many blue bags? _____

3. _____ red bags and _____ yellow bags.

4. How many bags in all? _____

ACTIVITY: The teacher will call 10 students with their pencils to the front of the class. He/she will sort them into pencil colours. Then help them complete the chart.

Object Chart for pencil colours.

black				
blue				
yellow				
red				

1. How many black pencils?_____

2. How many blue pencils? _____

3. _____ yellow and _____ red pencils.

4. Which colour has more?_____

5. Which colour has less? _____

VOCABULARY FOR STATISTICS

Sort the groceries

groups

object chart

pencils	sharpeners

picture chart

boys	girls

same

more

more eggs

more than

less than

less

less eggs

fewer

fewer cupcakes

many

two bulbs

There are many bulbs on the tree.

altogether

1	2	3	4	5

5 children altogether

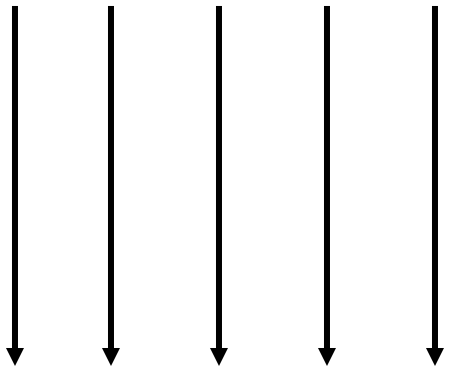
grid

across

These lines go **across**

down

These lines go **down**



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