

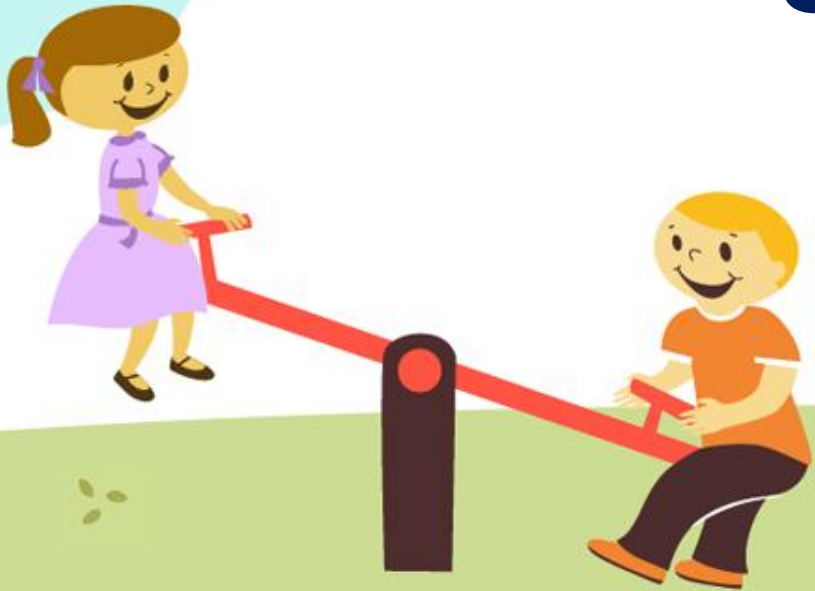
# Math Made Easy!

Parents' Workshop  
Primary 1 and 2

31<sup>st</sup> January 2015



**Some useful reminders...**



# Example 1

Amy has 10 stickers. Lisa has 7 more stickers than Amy.  
How many stickers do the two children have altogether?

Label each step  
of the working.

$$\begin{aligned} \text{Lisa} &\rightarrow 10 + 7 \\ &= 17 \end{aligned}$$

$$\begin{aligned} \text{altogether} &\rightarrow 17 + 10 \\ &= 27 \end{aligned}$$

Write  
statement

They have 27 stickers  
altogether.

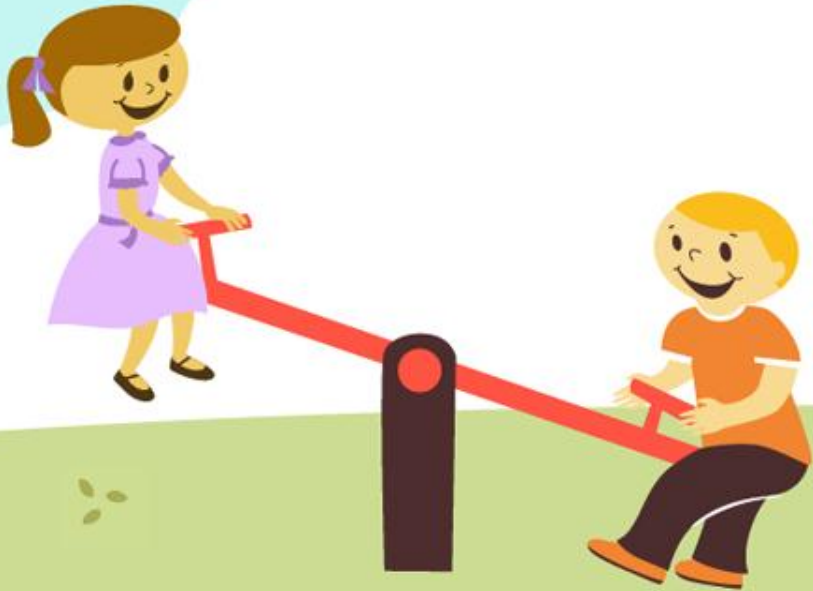
draw a line  
for side  
working.

write unit (stickers)  
in the answer blank.

Answer: 27 stickers

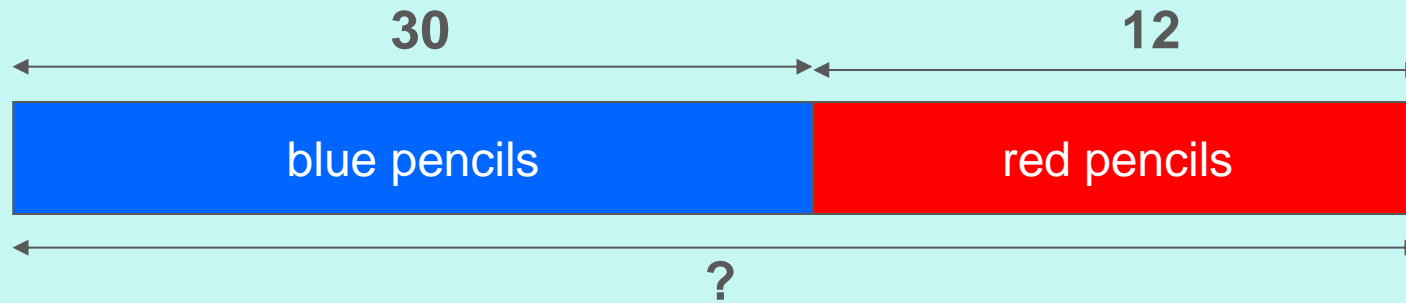
# Model Drawing

## Part-whole Model



Tom has 30 blue pencils and 12 red pencils.

How many pencils has he altogether?



$$30 + 12 = 42$$

He has 42 pencils altogether.

**Checking for Accuracy!**

$$42 - 30 = 12$$

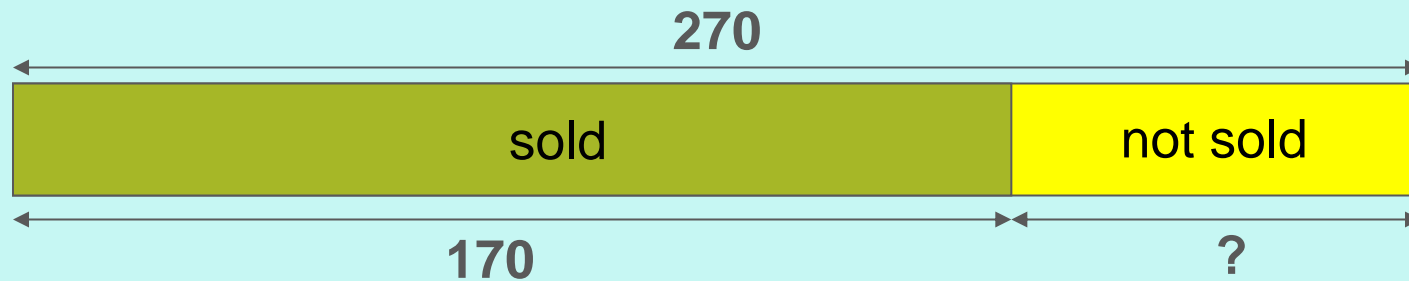
or

$$42 - 12 = 30$$

Mrs Chan baked 270 cookies.

She sold 170 cookies.

How many cookies were not sold?



$$270 - 170 = 100$$

100 cookies were not sold.

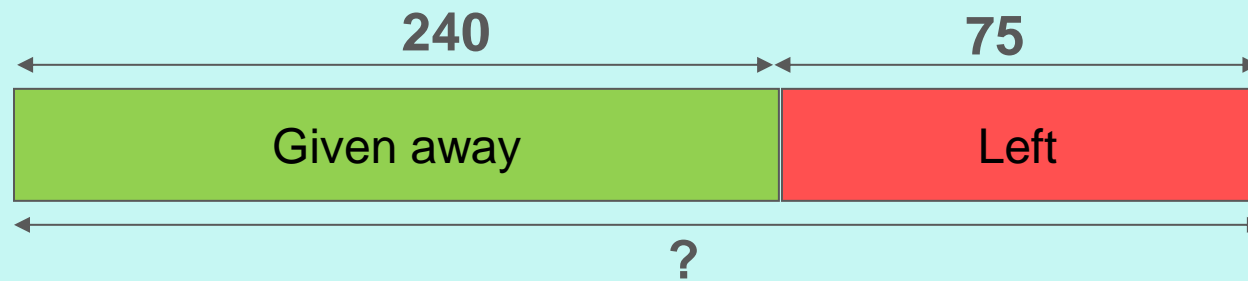
**Checking for Accuracy!**

$$170 + 100 = 270$$

## Let's try!

After giving away 240 balloons,  
Rahman had 75 balloons left.

How many balloons did Rahman have at first?



$$240 + 75 = 315$$

There were 315 balloons at first.

### Checking for Accuracy!

$$315 - 75 = 240$$

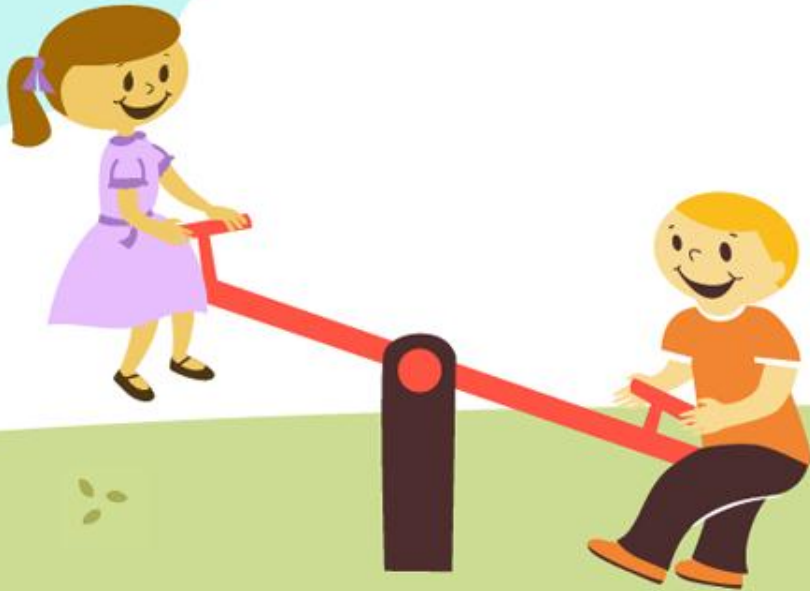
Or

$$315 - 240 = 75$$



**Model Drawing**

**Comparison Model**

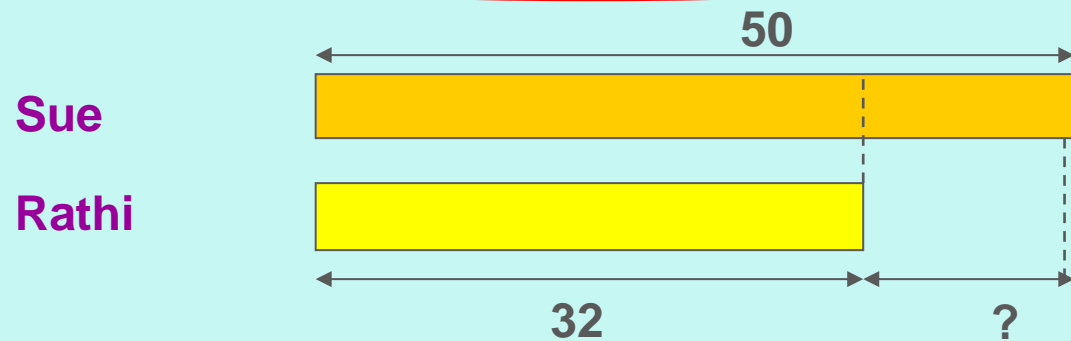




Sue has 50 books.

Rathi has 32 books.

How many more books has Sue than Rathi?



$$50 - 32 = 18$$

Sue has 18 more books than Rathi.

Checking for Accuracy!

$$18 + 32 = 50$$



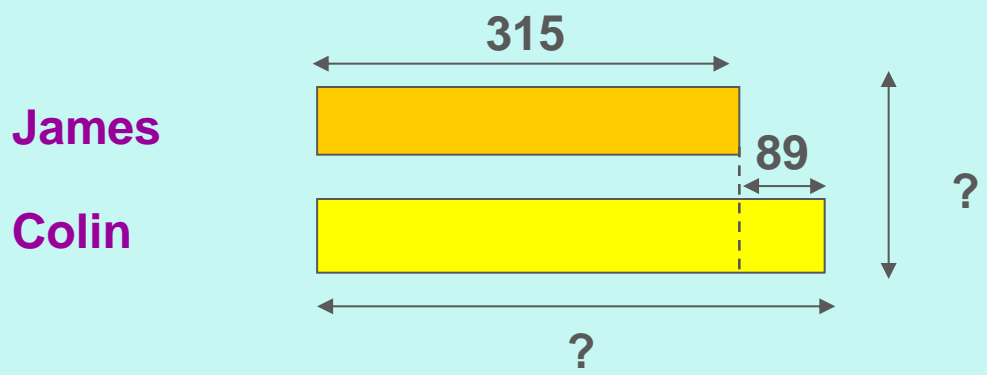
**Note:**

Notice that Sue has more books than Rathi. The question mark shows the difference in numbers of paper clips between the two girls.

James has 315 stamps.

Colin has 89 more stamps than James.

How many stamps do they have in all?



James has fewer  
Colin has more

Colin →  $315 + 89 = 404$

Altogether →  $315 + 404 = 719$

They had 719 stamps in all.

Checking for Accuracy!

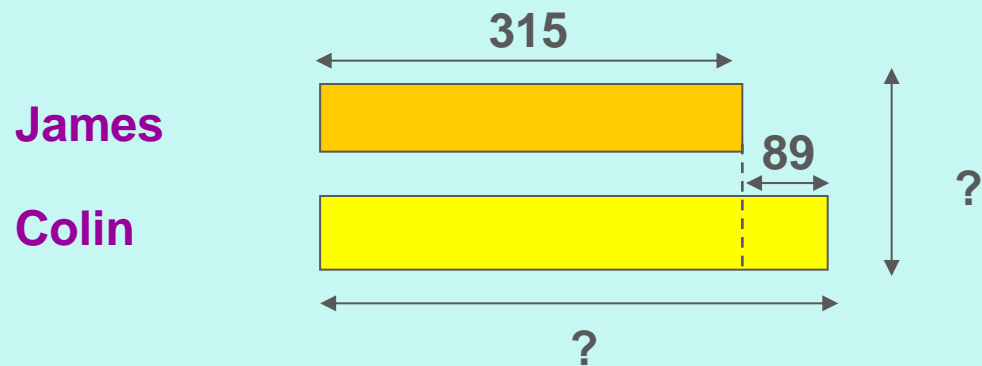
$719 - 315 = 404$

$404 - 89 = 315$

James has 315 stamps.

He has 89 fewer stamps than Colin.

How many stamps do they have in all?



$$\text{Colin} \rightarrow 315 + 89 = 404$$

$$\text{Altogether} \rightarrow 315 + 404 = 719$$

They had 719 stamps in all.

James has fewer

Colin has more

Checking for Accuracy!

$$719 - 315 = 404$$

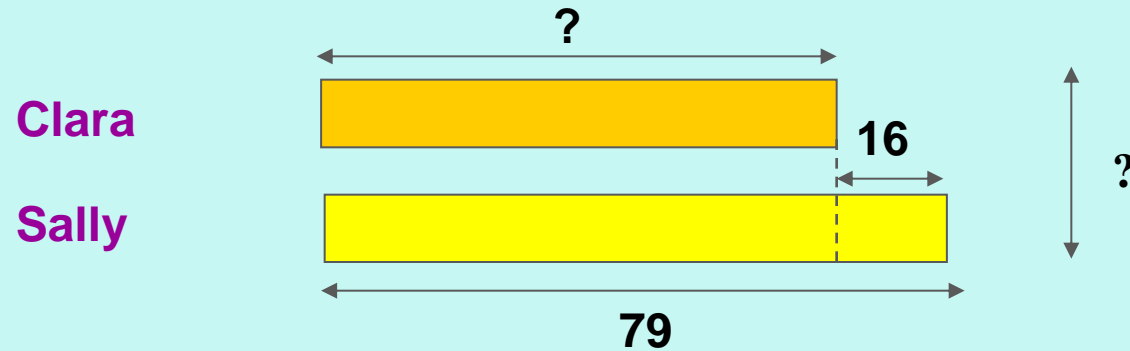
$$404 - 89 = 315$$

# Let's try!

Sally has 79 hair clips.

She has 16 more hair clips than Clara.

How many hair clips do they have altogether?



Workings:

$$\text{Clara} \rightarrow 79 - 16 = 63$$

$$\text{Altogether} \rightarrow 79 + 63 = 142$$

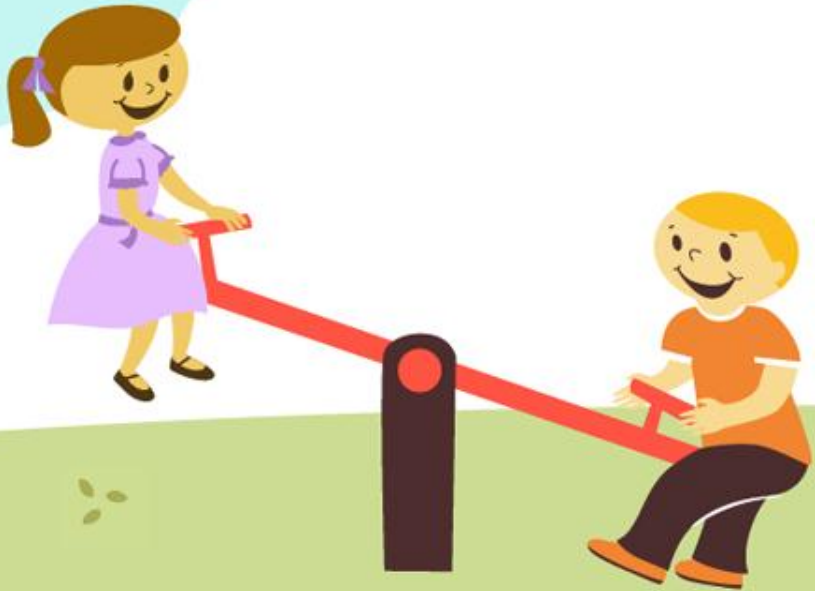
Checking for Accuracy!

$$142 - 79 = 63$$

$$63 + 16 = 79$$

They have 142 hair clips altogether.

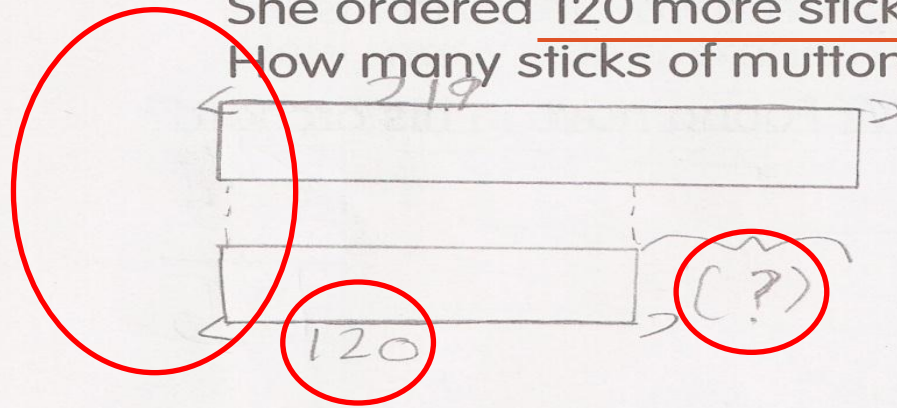
# Common Mistakes



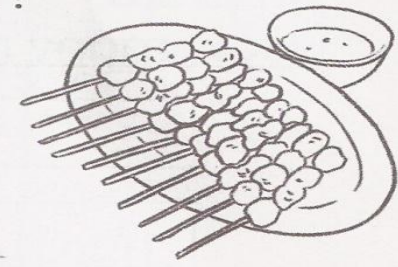
# No Labelling / Wrong Label

Do these word problems.  
Draw models to help you.

- (7) At a barbeque party, Flora ordered 219 sticks of chicken *satay*. She ordered 120 more sticks of chicken *satay* than mutton *satay*. How many sticks of mutton *satay* did Flora order?



$$\begin{array}{r} 219 \\ -120 \\ \hline 99 \end{array}$$



$$219 - 120 = \underline{99}$$

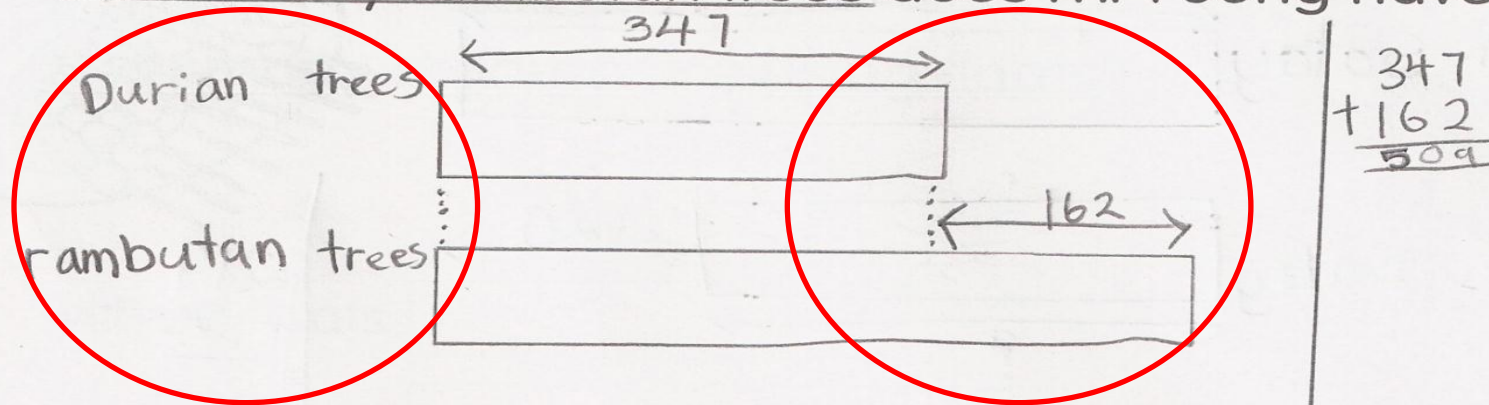
Flora ordered 99 sticks of mutton *satay*.



# Wrong Model

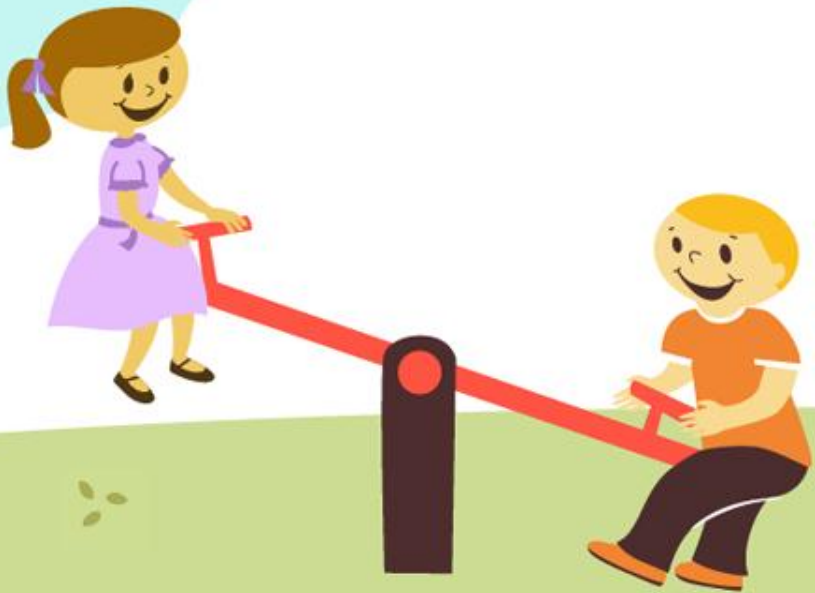
- (5) Mr Foong has 347 durian trees in his orchard. He has 162 more durian trees than rambutan trees in his orchard.

How many rambutan trees does Mr Foong have in his orchard?



Mr Foong has 509 rambutan trees in his orchard.

# Look for Patterns





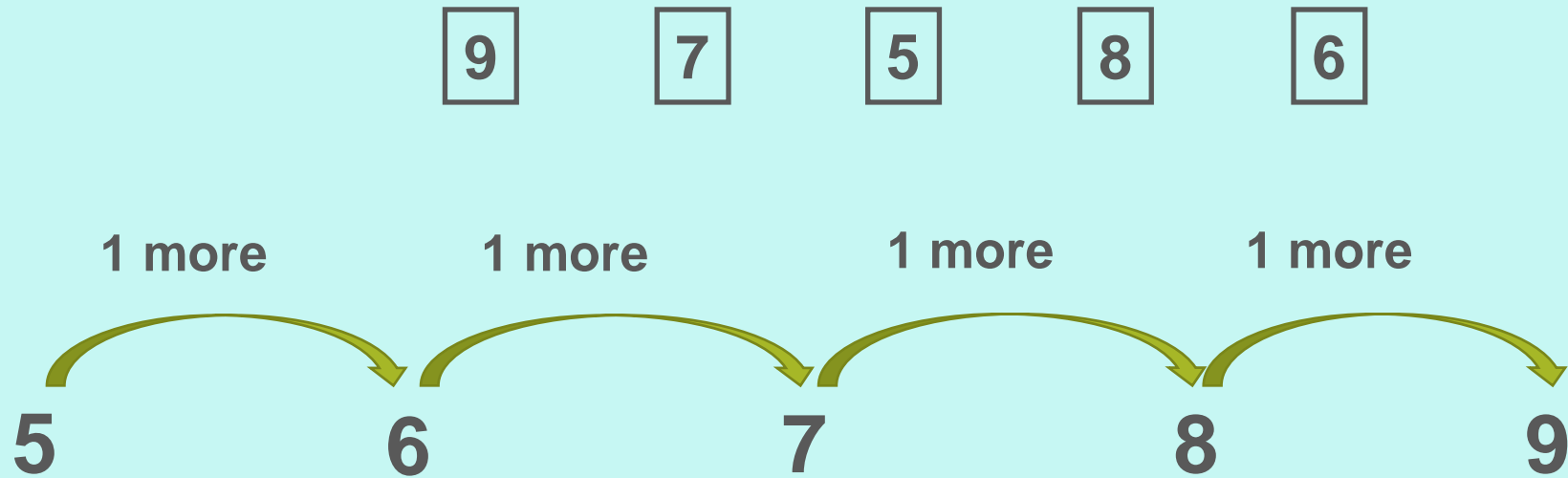
# Number Patterns

- Find the missing number in a series/group of numbers.
- Involves the four operations (+, -, ×, ÷).

<b>Primary 1</b>	<ul style="list-style-type: none"><li>• Addition &amp; subtraction</li></ul>
<b>Primary 2</b>	<ul style="list-style-type: none"><li>• Addition &amp; subtraction</li><li>• Multiplication &amp; division</li></ul>

## Addition & Subtraction

We can make a number pattern using all these numbers.

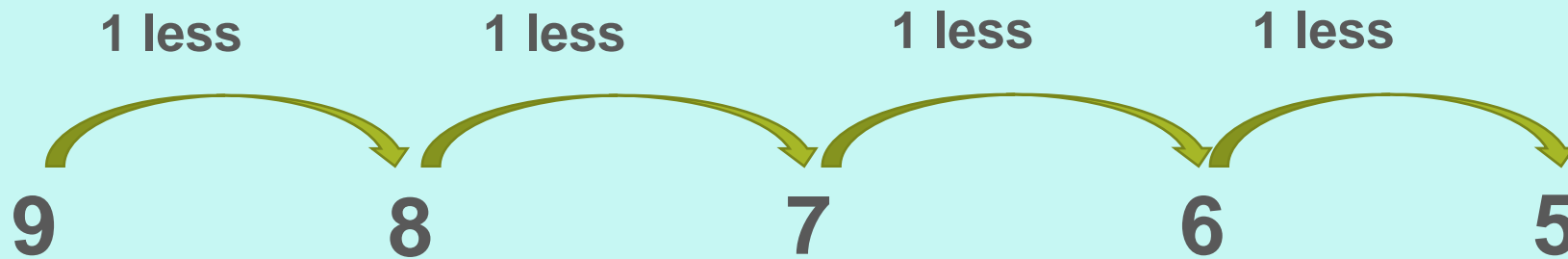


What is the rule of the pattern?

Each number is 1 more than the number before it.

## Addition & Subtraction

We can also make a pattern this way.

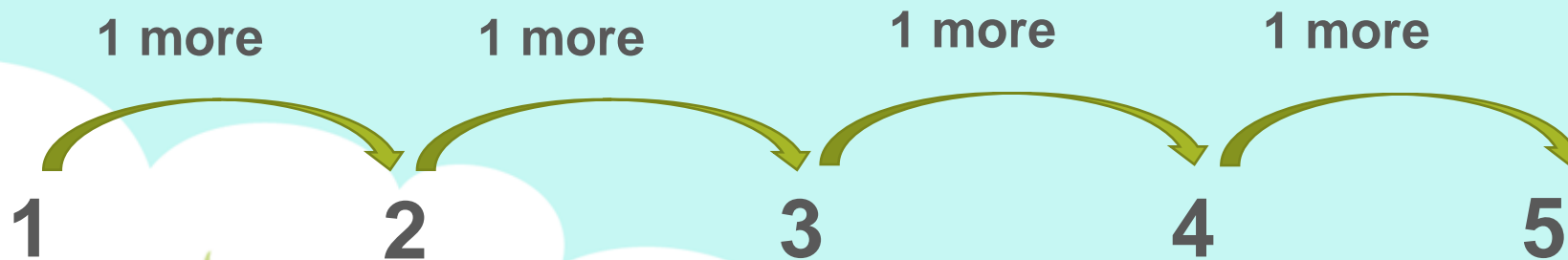
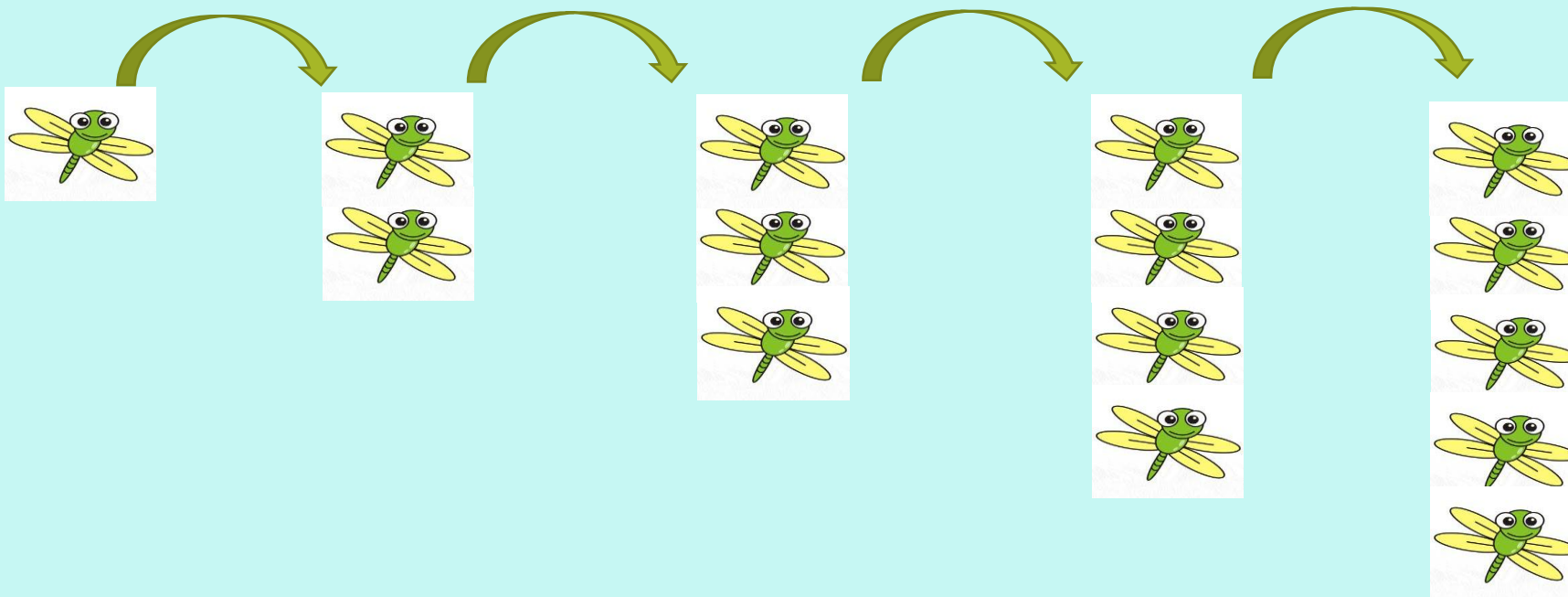


What is the rule of the pattern?

Each number is 1 less than the number before it.

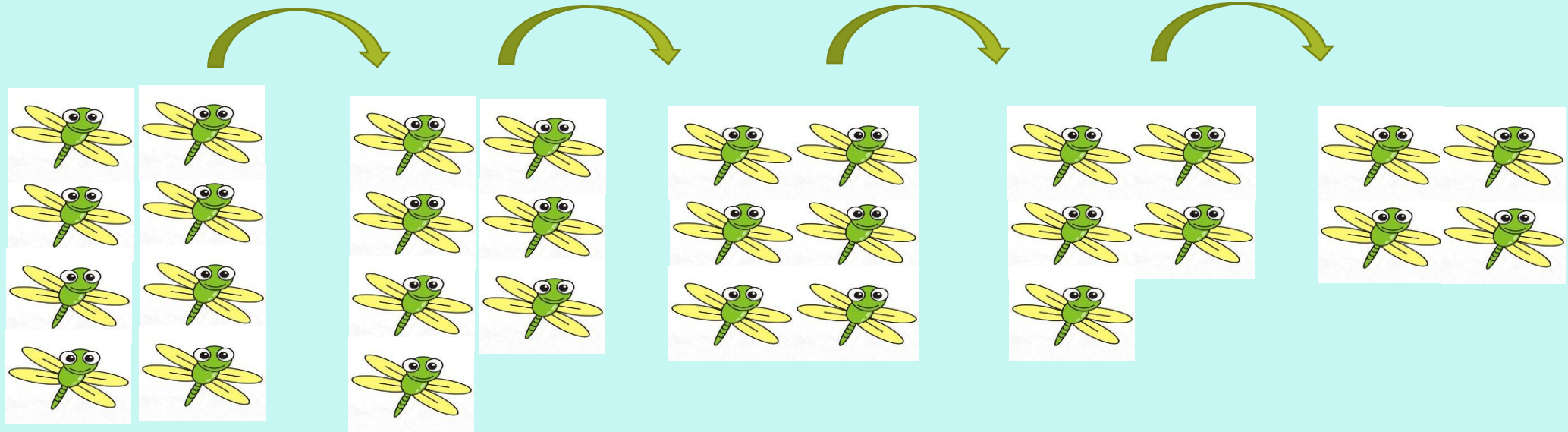
# Addition & Subtraction

We can make number patterns using 1 more.



# Addition & Subtraction\_

We can make number patterns using 1 less.



1 less

1 less

1 less

1 less

8

7

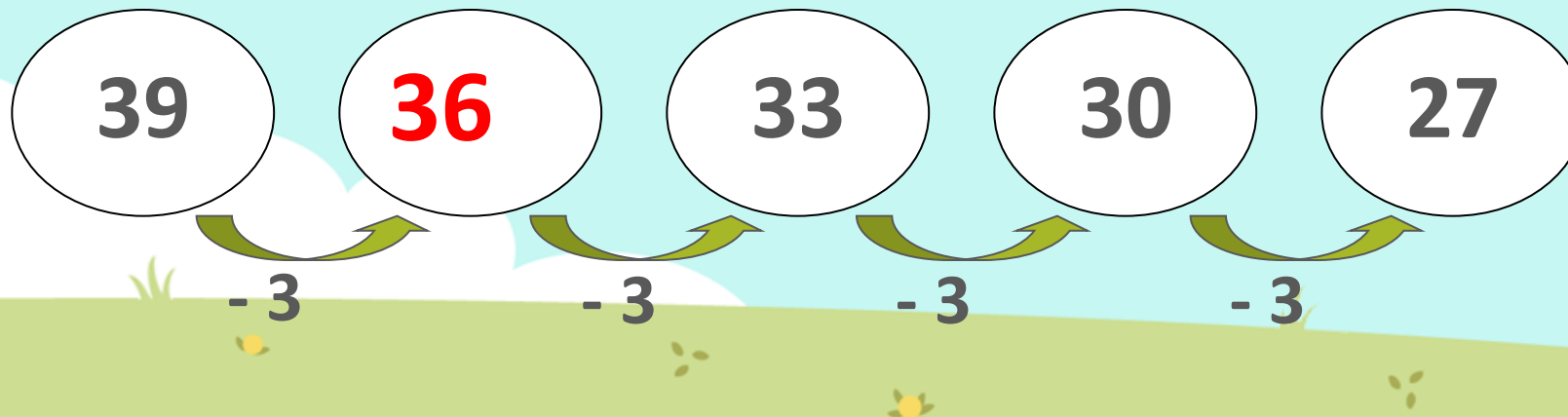
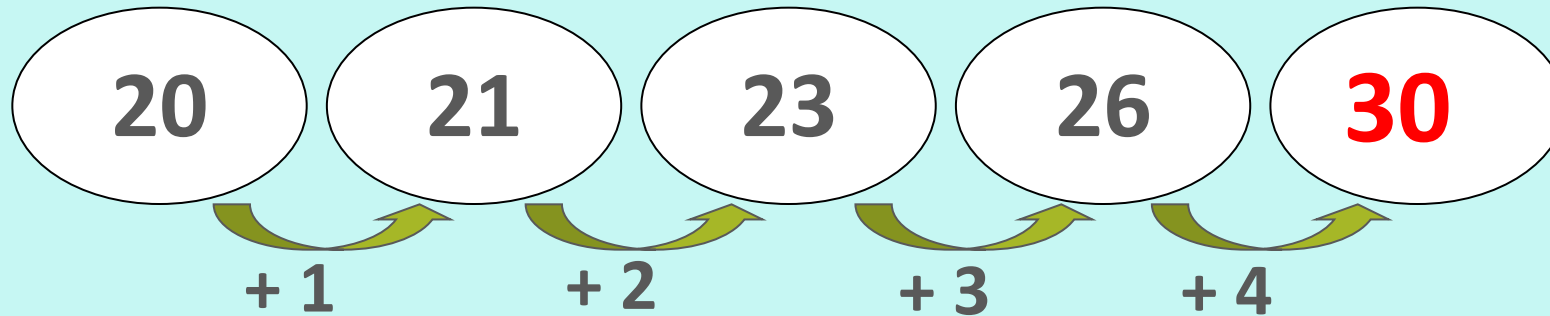
6

5

4

# Addition & Subtraction

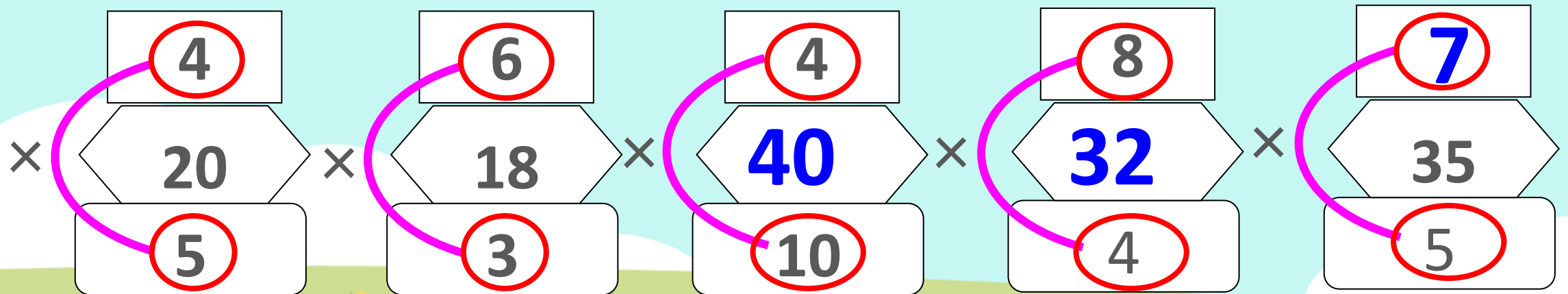
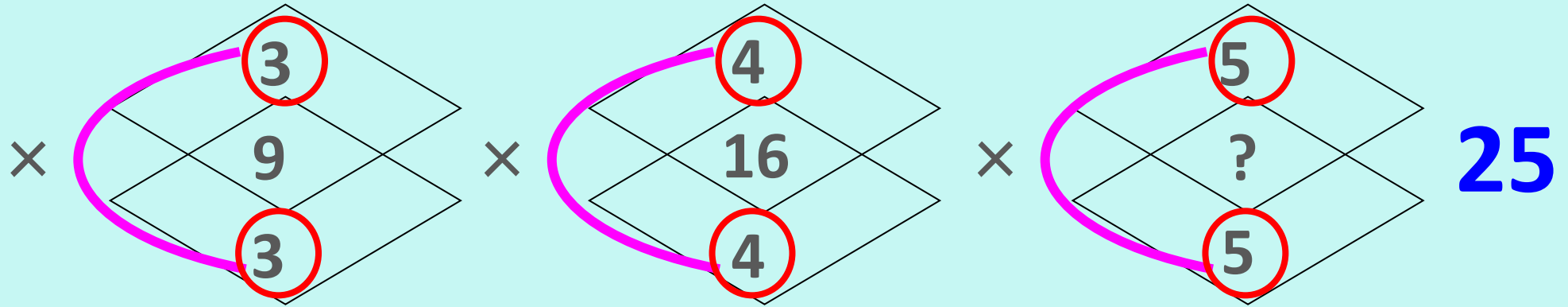
What is the rule of the pattern?



# Multiplication & Division

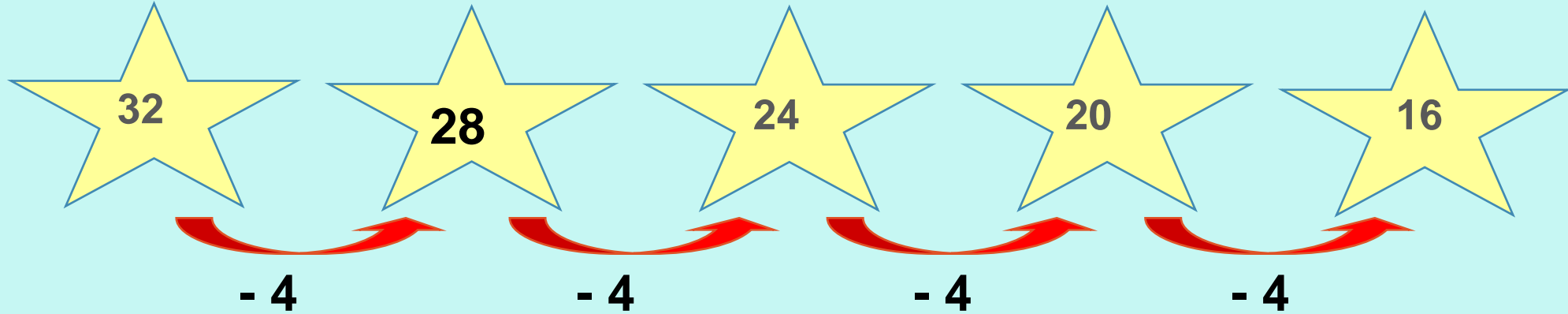
## Examples

What is the rule of the pattern?

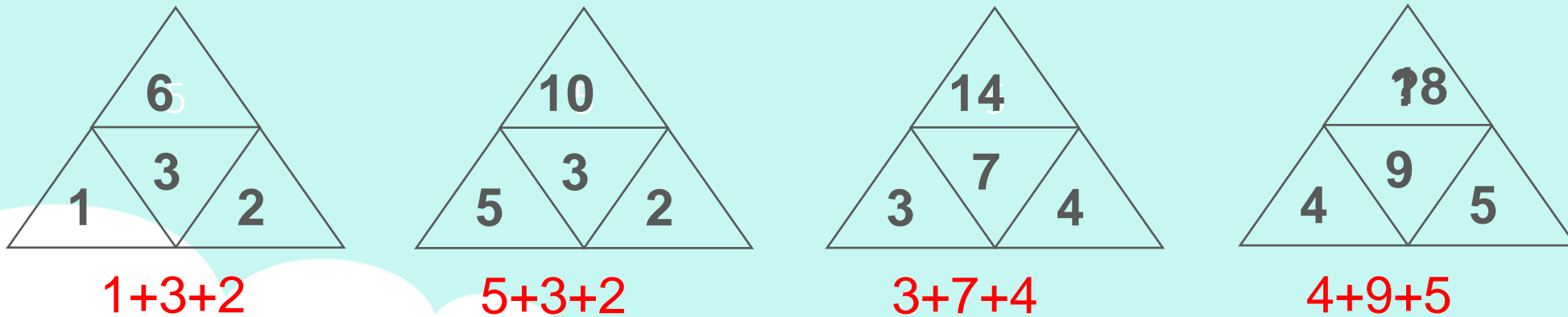


# Let's try!

1. Find the pattern and fill in the missing number:-



2.



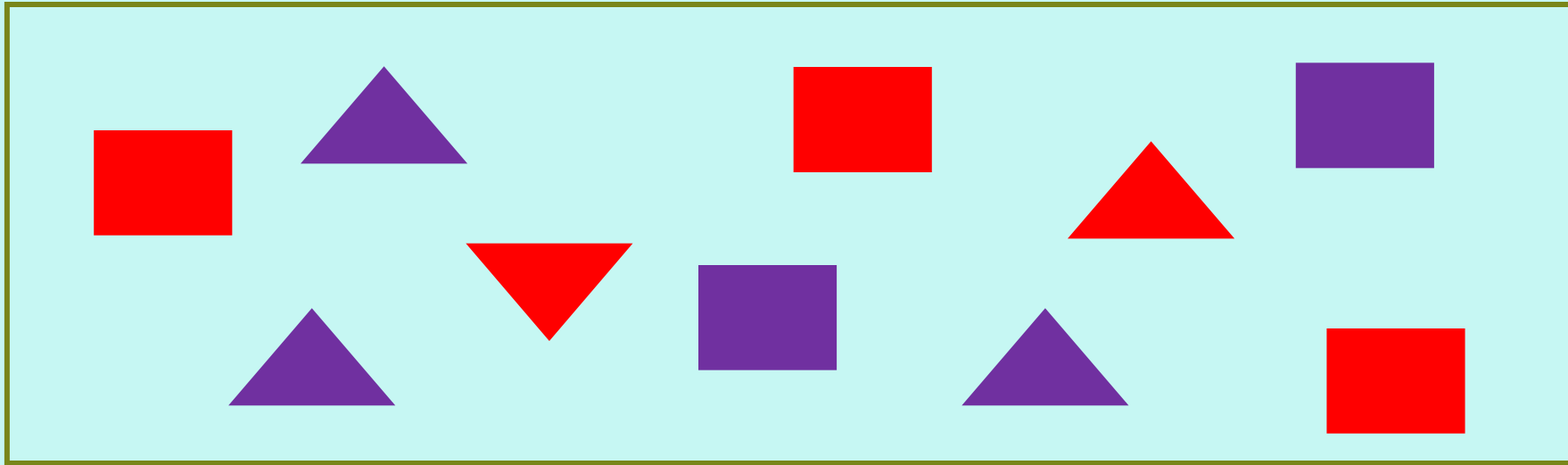
The missing number is 18.



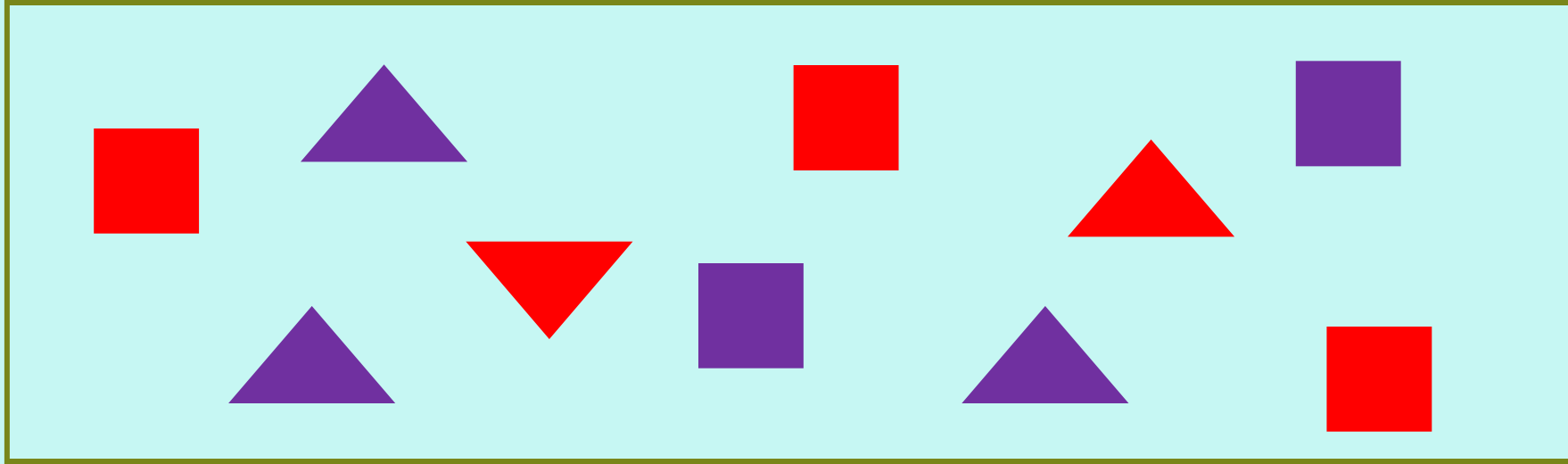
# Look for Patterns - Shapes

## Let's Learn

These shapes have different shapes and colours.



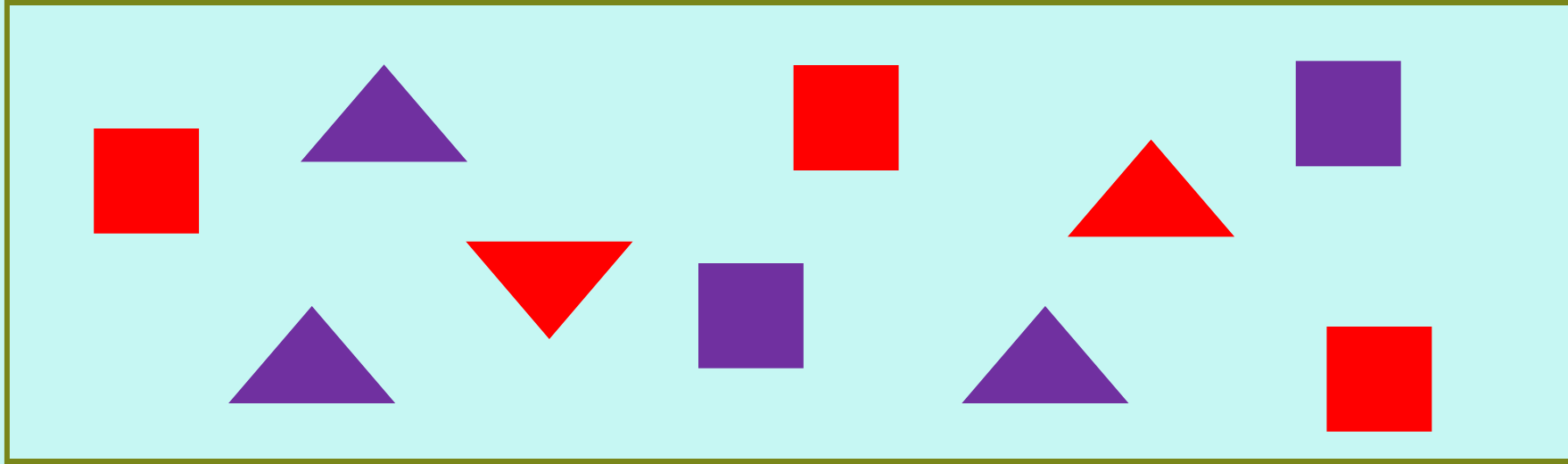
Shapes can be grouped according to shapes.



Triangle

Square

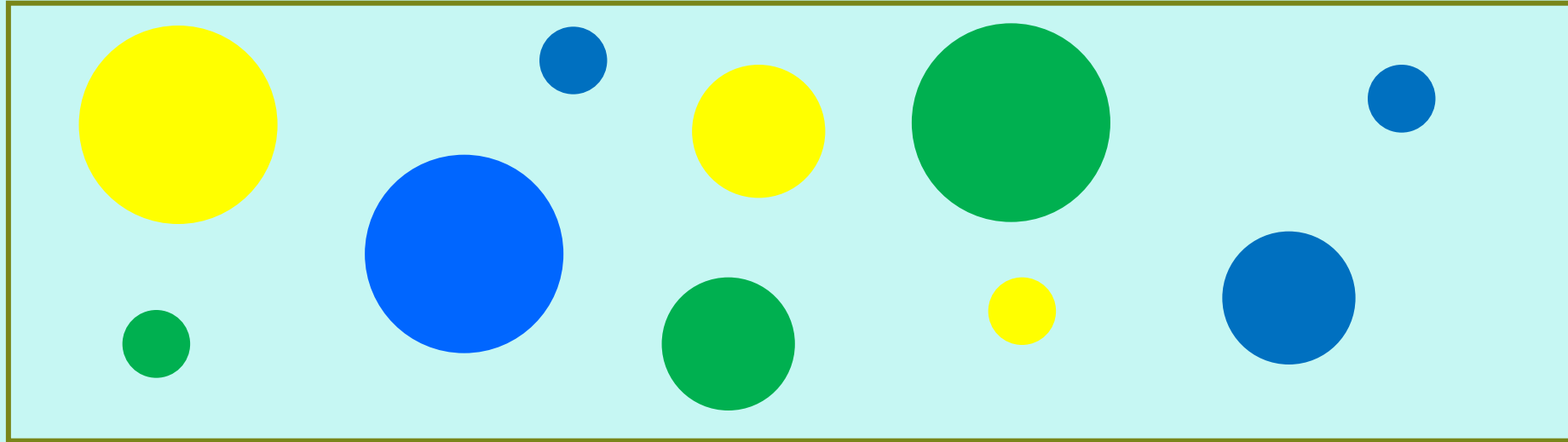
Shapes can be grouped according to colour.



Purple

Red

Shapes can be grouped according to size.



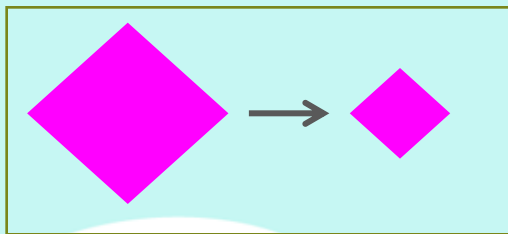
**Large**

**Medium**

**Small**

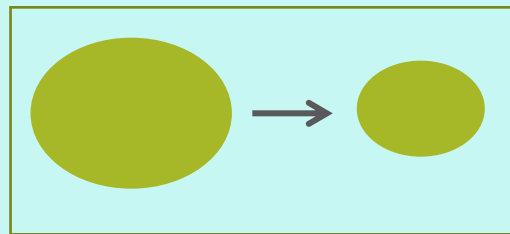
What is the rule of the pattern?

Size  
and  
orientation



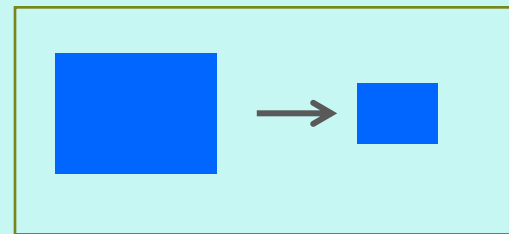
Big

Small



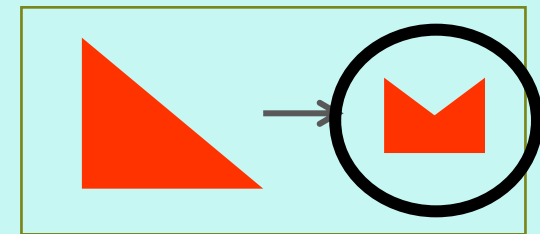
Big

Small



Big

Small

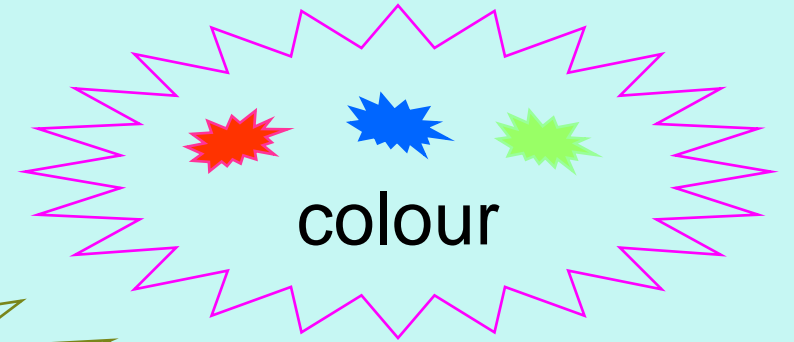
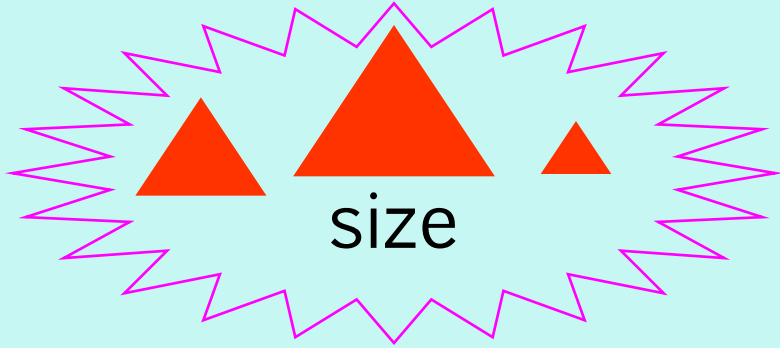


Big

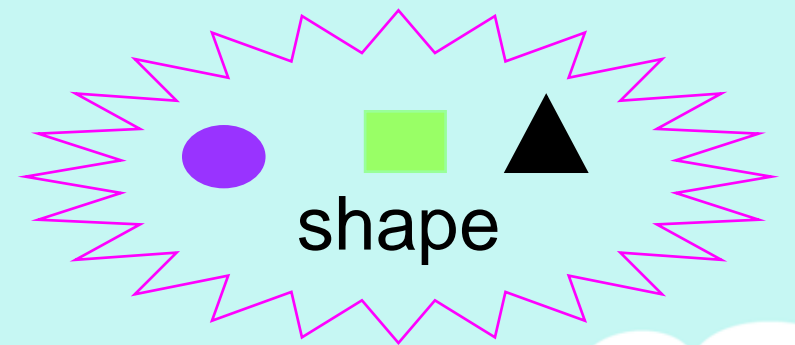
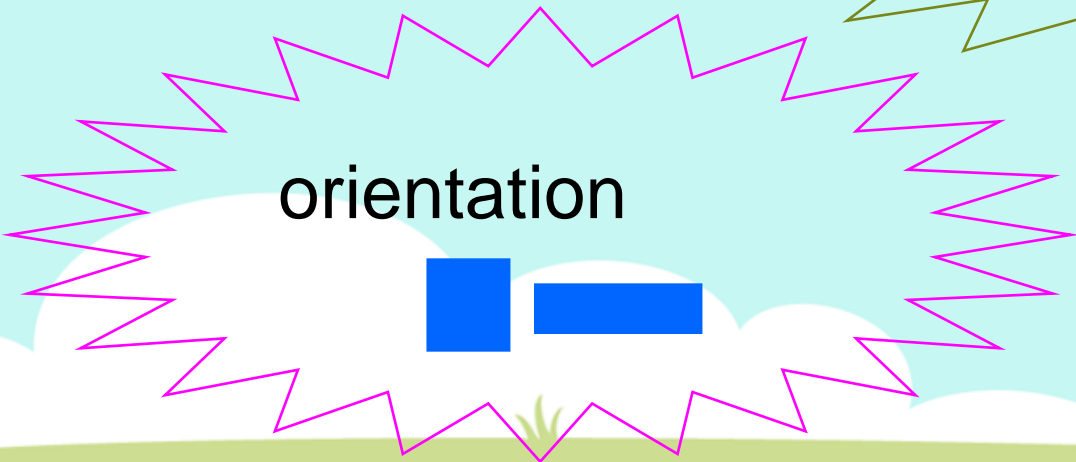
Small



# Look for Patterns: Let's Learn



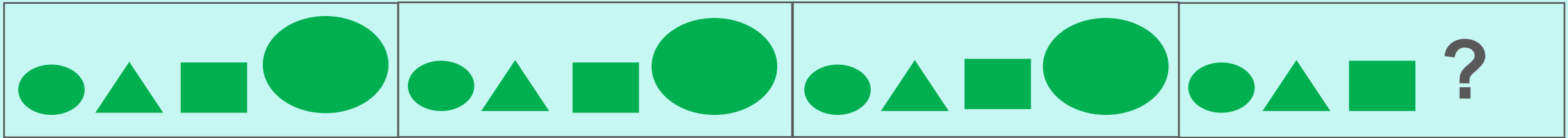
Patterns can be formed by a change in...



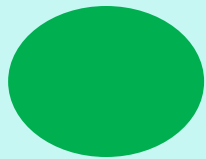
# Look for Patterns: Let's Try

Study the shapes.

Look for the pattern that repeats.



? must be



# Let's Try!

Look for the pattern.  
What shapes come next?



? ? must be

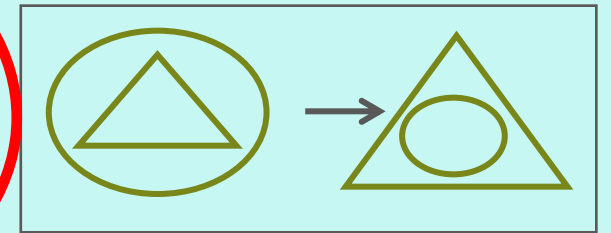
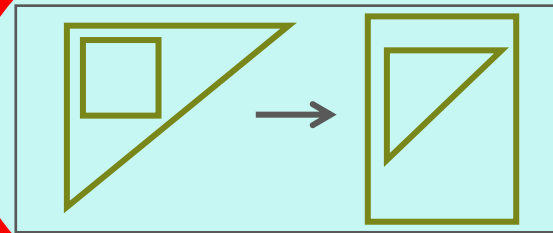
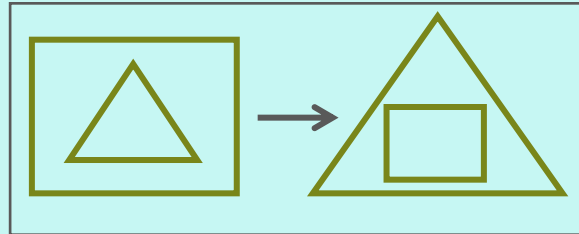
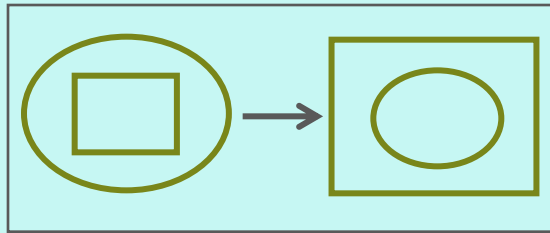




# Let's Try!

Study the pattern.

Circle the one that does not belong.



# Look for Patterns + Make A List

How many ovals are in Figure 5?  
What is the rule of the pattern?

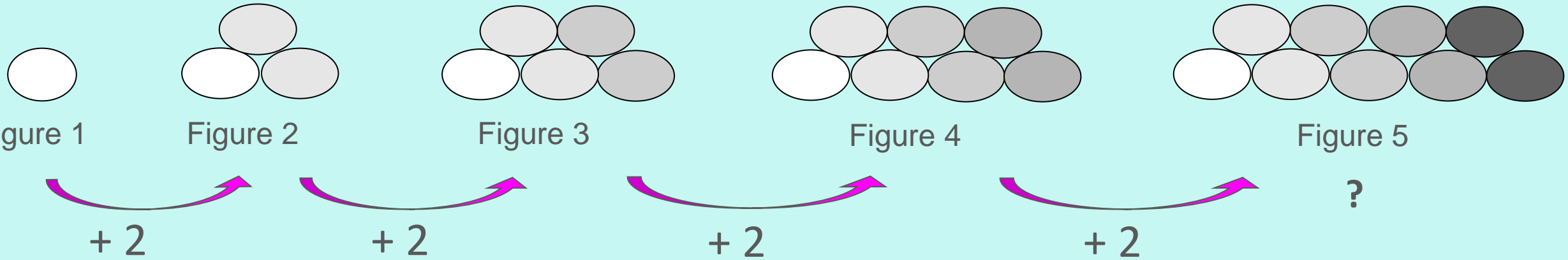


Figure 1	1
Figure 2	$1 + 2 = 3$
Figure 3	$3 + 2 = 5$
Figure 4	$5 + 2 = 7$
Figure 5	$7 + 2 = 9$

There are 9 ovals in Figure 5.

# Let's Try!

How many squares are there in Figure 5?

What is the rule of the pattern?

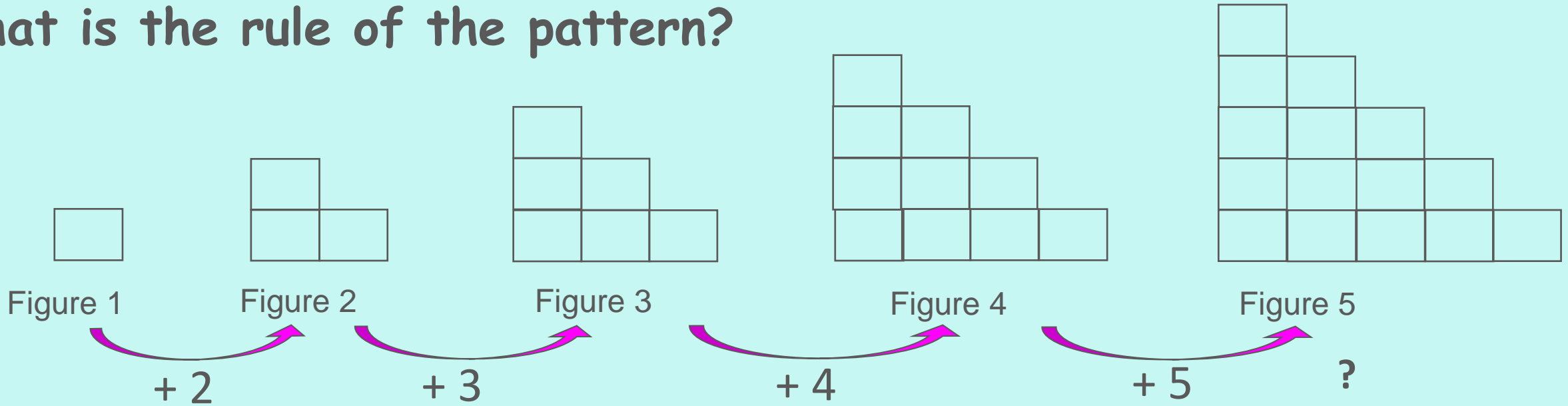
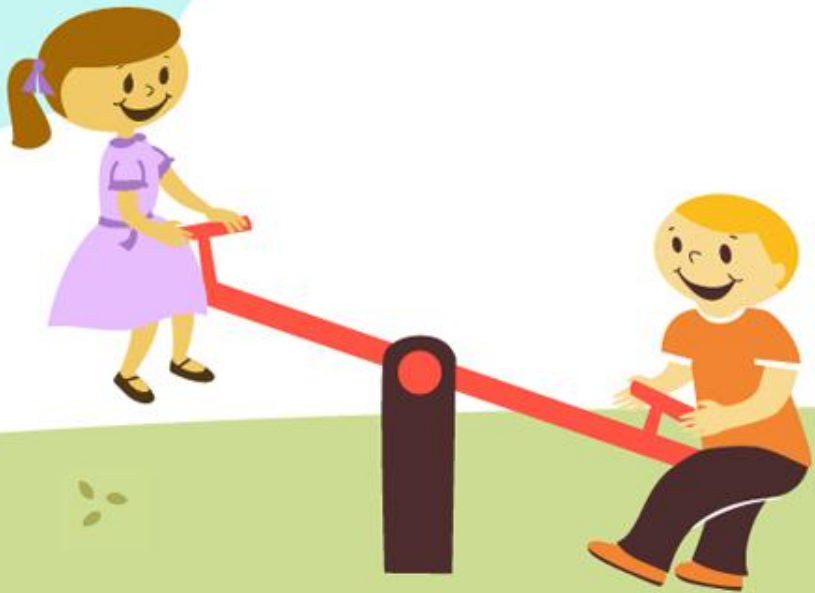


Figure 1	1
Figure 2	$1 + 2 = 3$
Figure 3	$3 + 3 = 6$
Figure 4	$6 + 4 = 10$
Figure 5	$10 + 5 = 15$

There are 15 squares in Figure 5.

# Guess & Check



# Guess and Check

- Involves making appropriate and intelligent guesses to derive the solution
- Can be shown through the drawing of diagrams or through the use of mathematical number sentences

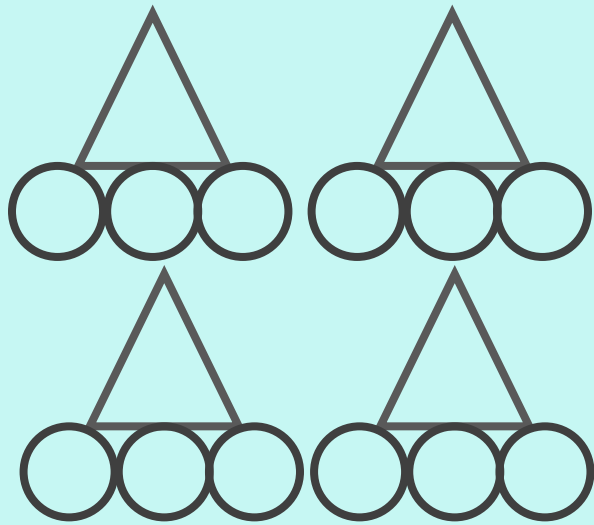


Mr Lee has **10** tricycles and bicycles in his shop. There are **24 wheels** in all. **How many tricycles and bicycles** does Mr Lee have in his shop?

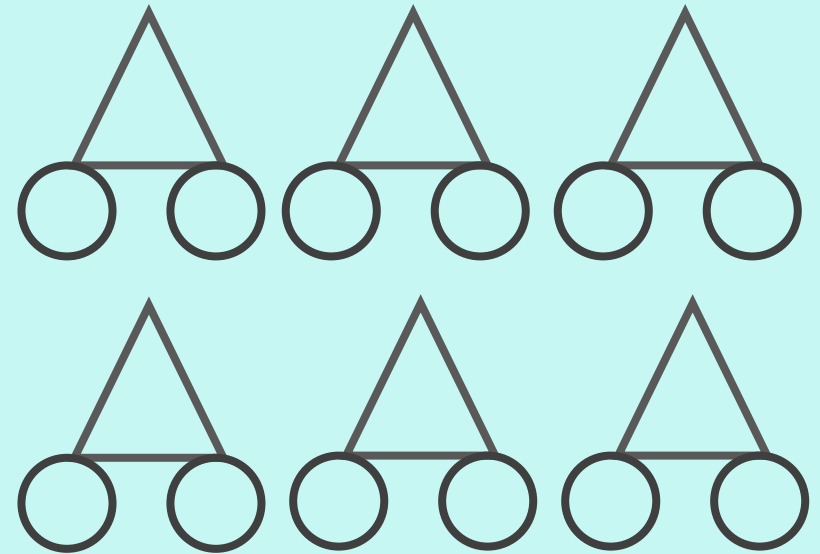
Number of tricycles	Number of wheels	Number of bicycles	Number of wheels	Total number of wheels	Check
5	$5 \times 3 = 15$	5	$5 \times 2 = 10$	$15 + 10 = 25$	✗
<b>4</b>	$4 \times 3 = 12$	<b>6</b>	$6 \times 2 = 12$	$12 + 12 = 24$	✓

Mr Lee has 4 tricycles and 6 bicycles in his shop.

Mr Lee has **10** tricycles and bicycles in his shop. There are **24 wheels** in all. **How many tricycles and bicycles** does Mr Lee have in his shop?



$$4 \times 3 = 12 \text{ wheels}$$



$$6 \times 2 = 12 \text{ wheels}$$

$$12 + 12 = 24 \text{ wheels}$$

Mr Lee has 4 tricycles and 6 bicycles in his shop.

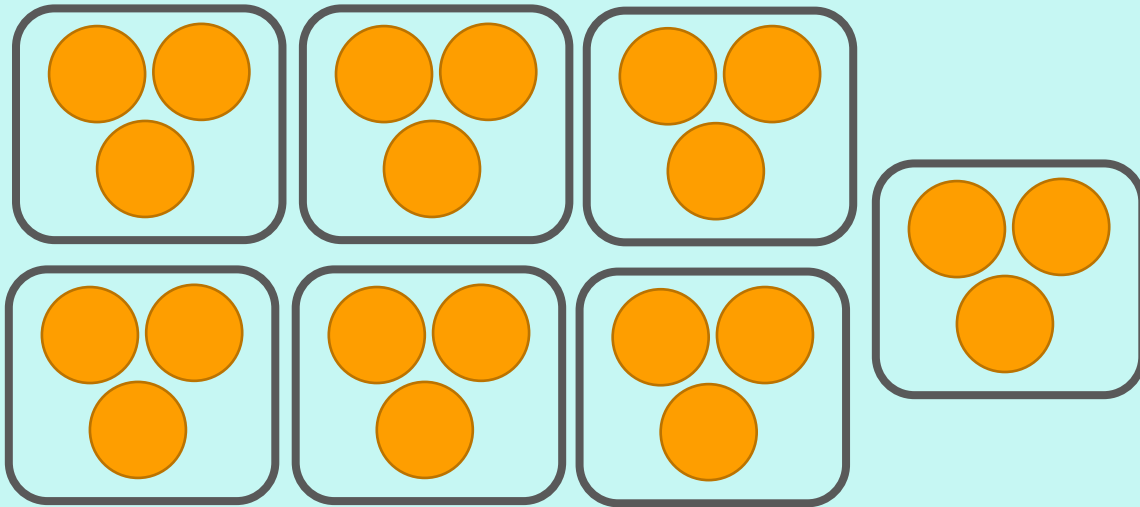
A shopkeeper has 41 apples and oranges. He packed the oranges into bags of 3 and the apples into bags of 4. He used 12 bags altogether. How many bags of oranges and apples did he have?

Number of bags	Number of oranges	Number of bags	Number of apples	Total number of fruits	Check
6	$6 \times 3 = 18$	6	$6 \times 4 = 24$	$18 + 24 = 42$	✗
7	$7 \times 3 = 21$	5	$5 \times 4 = 20$	$21 + 20 = 41$	✓

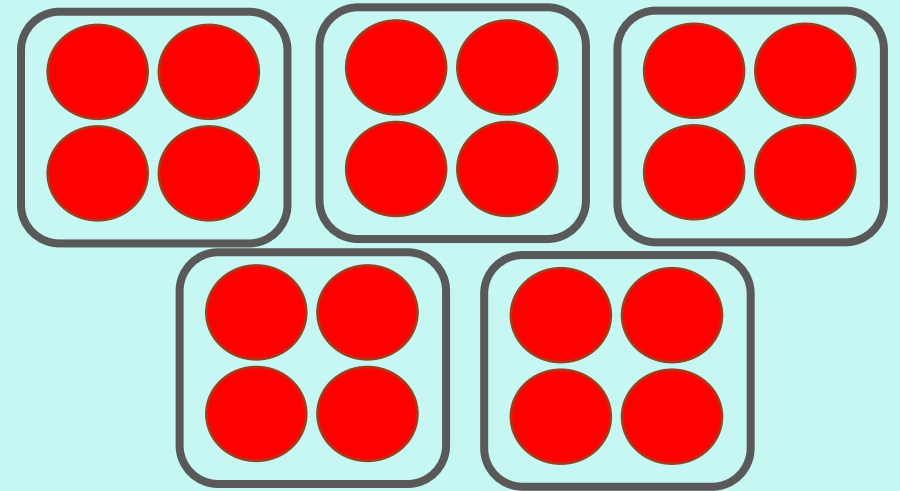
He had 7 bags of oranges and 5 bags of apples.



A shopkeeper has 41 apples and oranges. He packed the oranges into bags of 3 and the apples into bags of 4. He used 12 bags altogether. How many bags of oranges and apples did he have?



$$7 \times 3 = 21 \text{ oranges}$$

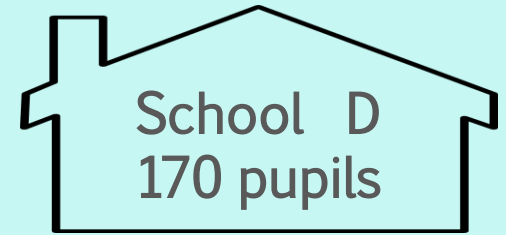
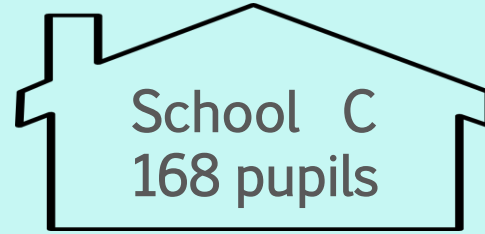
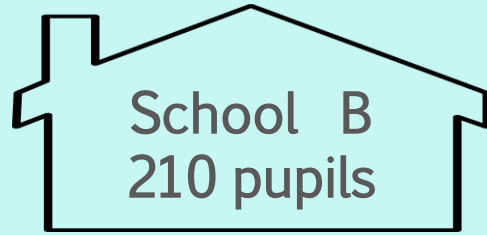


$$5 \times 4 = 20 \text{ apples}$$

$$21 + 20 = 41$$

He had 7 bags of oranges and 5 bags of apples.

Three schools went to the zoo last Friday. There were **568** **pupils** at the zoo altogether. **Which three schools** went to the zoo last Friday?

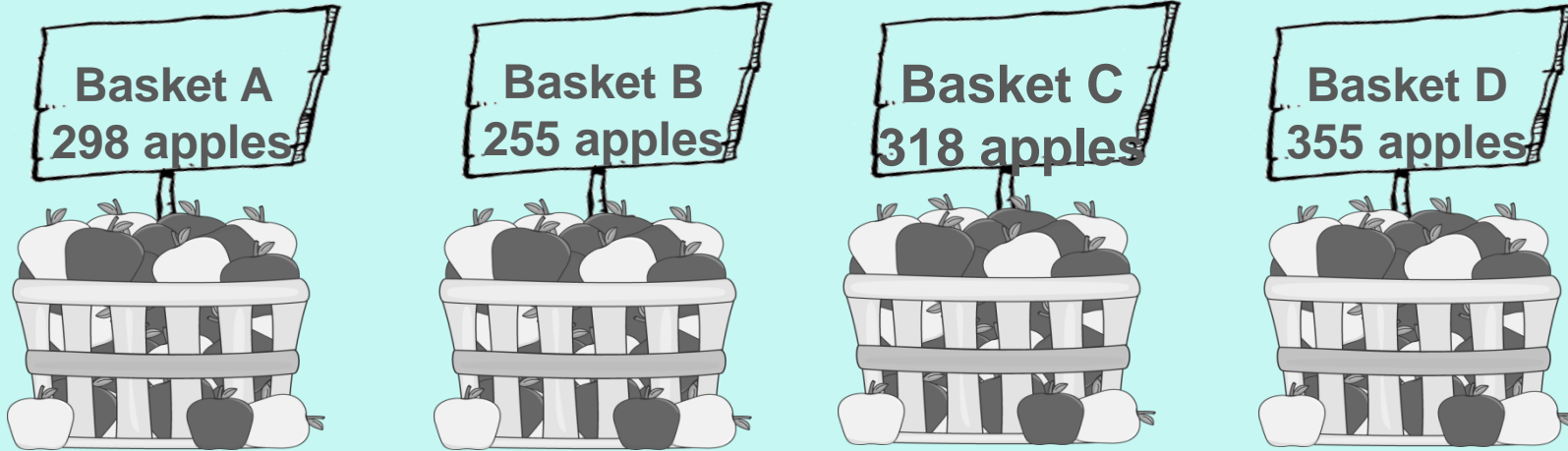


Schools A, B, C  $\rightarrow 188 + 210 + 168 = 566$  pupils ✗

Schools A, B, D  $\rightarrow 188 + 210 + 170 = 568$  pupils ✓

The three schools are School A, School B and School D.

Farmer John bought **3 baskets of apples** at the market. He bought **971 apples** altogether. **Which 3 baskets of apples did he buy** from the market?



Baskets A, B, C →  $298 + 255 + 318 = 871$  apples ✗

Baskets A, B, D →  $298 + 255 + 355 = 908$  apples ✗

Baskets A, C, D →  $298 + 318 + 355 = 971$  apples ✓

Farmer John bought Baskets A, C and D.