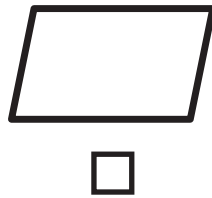


# Big Maths Beat That!: Teacher Notes

SAFE Challenge 14			
	Step Location in the SAFE framework		Title of Step
	Progress Drive	Step No.	
Q1	Shape: 2D Shapes	22	I know 'The Quadrilateral Family'
Q2	Shape: Position & Direction	15	I can provide coordinates for a given point
Q3	Shape: Position & Direction	17	I can use x and y coordinates to find points
Q4	Amounts: Amounts of Temperature	9	I can read negative temperatures
Q5	Fractions: Fractions: Counting	12	I can round numbers with 1dp
Q6	Fractions: Fractions: Learn Its	6	I know all of my tables as fractions Learn Its
Q7	Fractions: Fractions: It's Nothing New	6	I can multiply unit fractions (within 1)
Q8	Fractions: Fractions: Calculation	5	I can simplify a fraction using my tables
Q9	Explaining Data: Bar Charts	10	I can find how many more (or fewer) than a given value shown on the horizontal axis (with continuous data)
Q10	Explaining Data: Line Graphs	3	I can explain a range of simple line graphs

1 Tick the quadrilateral that is a parallelogram



5 Round to the nearest whole number:

3.4 →

6  $\frac{1}{7}$  of 56 =

$\frac{1}{4}$  of 32 =

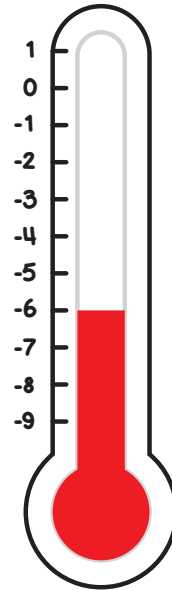
$\frac{1}{6}$  of 48 =

7  $8 \times \frac{1}{9} =$

8 Simplify:

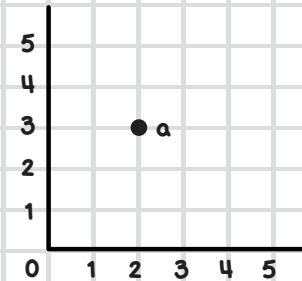
$\frac{10}{40} =$

4 °C



Temperature °C

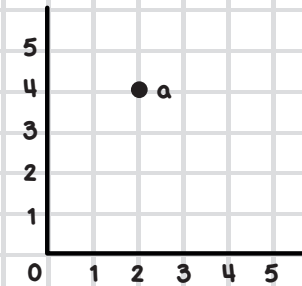
2



Write down the co-ordinates for point a

A = ( , )

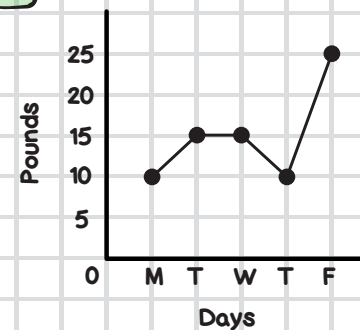
3



What is the y co-ordinate of point a?

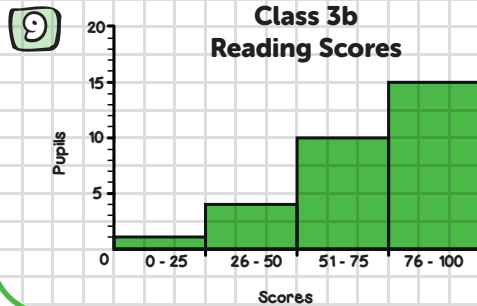
y =

10



A school tuck shop recorded its sales over one week.

How much money did the sales produce on Wednesday?



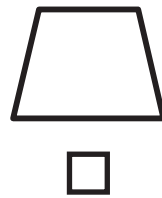
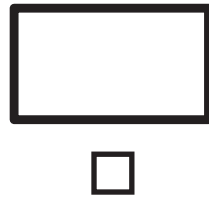
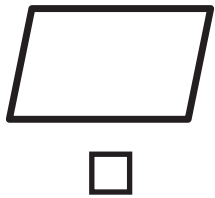
How many pupils scored more than 75 marks?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

6.2 →

6  $\frac{1}{7}$  of 56 =

$\frac{1}{4}$  of 32 =

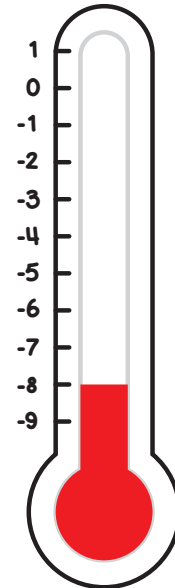
$\frac{1}{6}$  of 48 =

7  $4 \times \frac{1}{6} =$

8 Simplify:

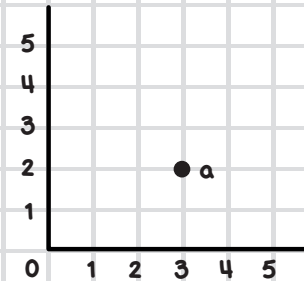
$\frac{5}{20} =$

4 °C



Temperature °C

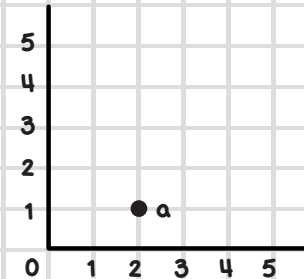
2



Write down the co-ordinates for point a

A = ( , )

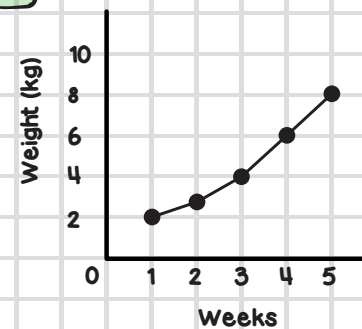
3



What is the x co-ordinate of point a?

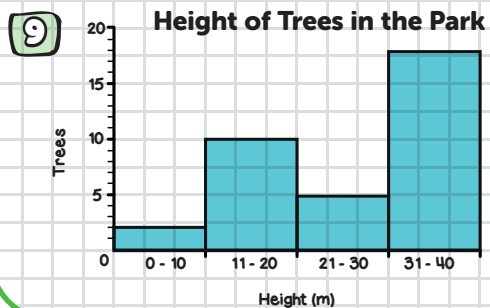
x =

10



A vet recorded the weight of a puppy over 5 weeks.

How much did the puppy weigh in week 3?



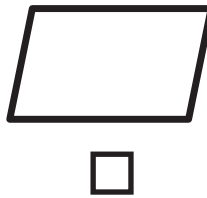
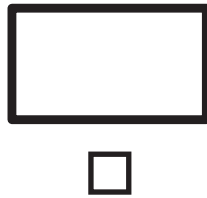
How many trees were 21 - 30m tall?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a kite



5 Round to the nearest whole number:

1.5 →

6  $\frac{1}{6}$  of 36 =

$\frac{1}{9}$  of 54 =

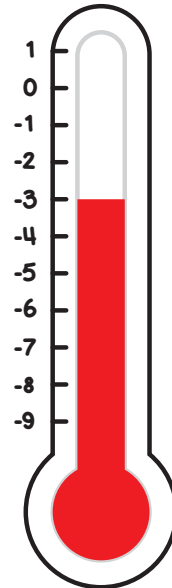
$\frac{1}{9}$  of 81 =

7  $7 \times \frac{1}{9} =$

8 Simplify:

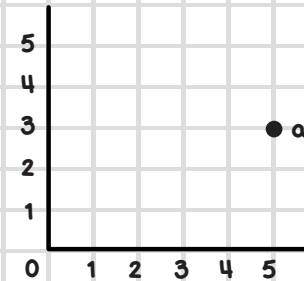
$\frac{2}{10} =$

4  $^{\circ}\text{C}$



Temperature  $^{\circ}\text{C}$

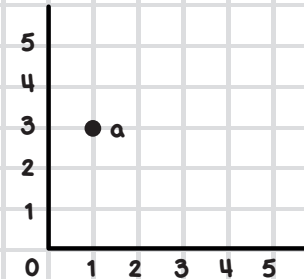
2



Write down the co-ordinates for point a

A = ( , )

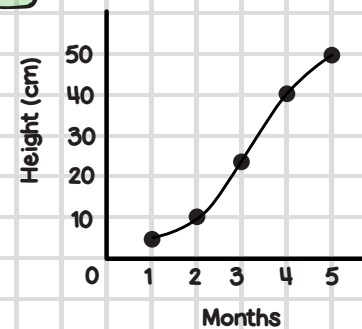
3



What is the x co-ordinate of point a?

x =

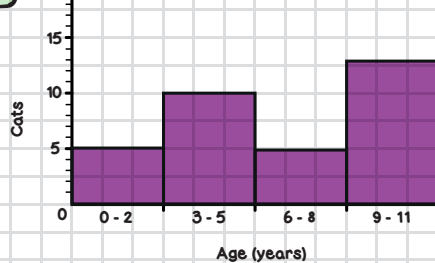
10



A gardener recorded the height of a plant over 5 months.

How tall was the plant at 4 months?

9 Ages of Cats at the Rescue Centre



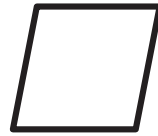
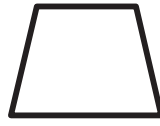
How many cats were 3 - 5 years old?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a rhombus



5 Round to the nearest whole number:

8.1 →

6  $\frac{1}{6}$  of 36 =

$\frac{1}{9}$  of 54 =

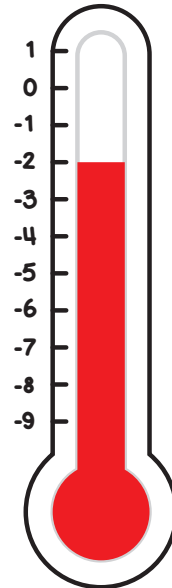
$\frac{1}{9}$  of 81 =

7  $4 \times \frac{1}{8} =$

8 Simplify:

$\frac{10}{50} =$

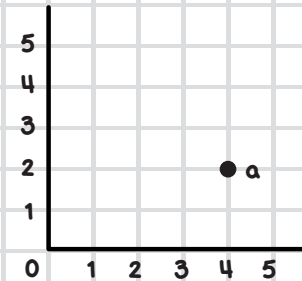
4 °C



Temperature °C

\_\_\_\_\_

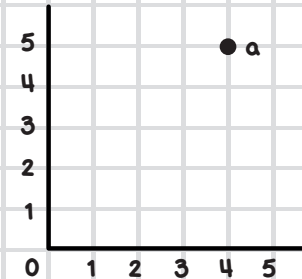
2



Write down the co-ordinates for point a

A = ( , )

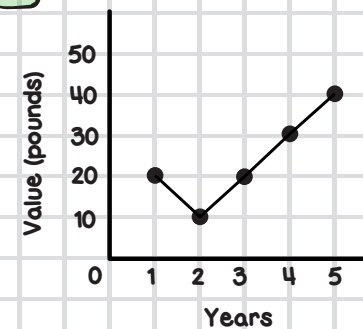
3



What is the y co-ordinate of point a?

y =

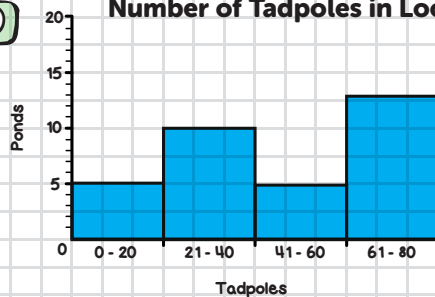
10



A pupil recorded the value of their card collection over 5 years.

What was the value at 3 years?

9 Number of Tadpoles in Local Ponds



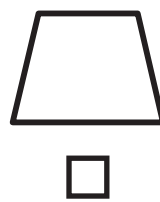
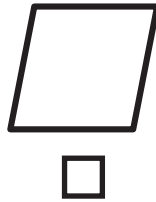
How many ponds had 41 - 60 tadpoles?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

3.9 →

6  $\frac{1}{7}$  of 42 =

$\frac{1}{6}$  of 42 =

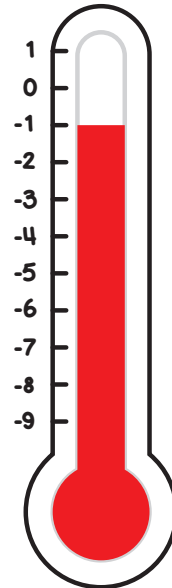
$\frac{1}{7}$  of 49 =

7  $3 \times \frac{1}{7} =$

8 Simplify:

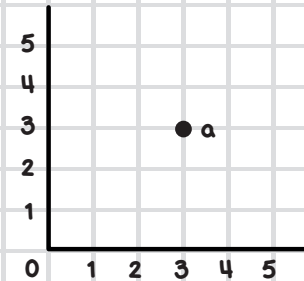
$\frac{2}{10} =$

4  $^{\circ}\text{C}$



Temperature  $^{\circ}\text{C}$

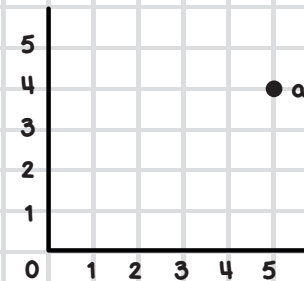
2



Write down the co-ordinates for point a

A = ( , )

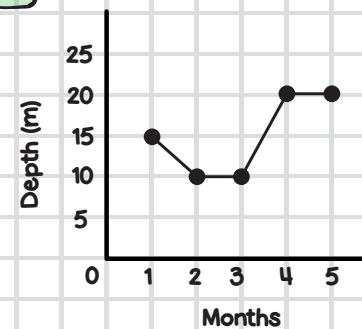
3



What is the y co-ordinate of point a?

y =

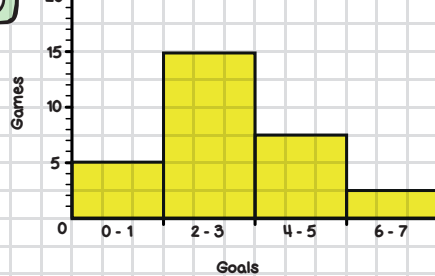
10



Pupils recorded the depth of a river over 5 months.

What was the depth at 4 months?

9 Number of Goals in Football Games



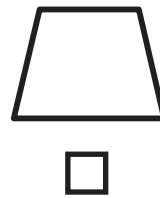
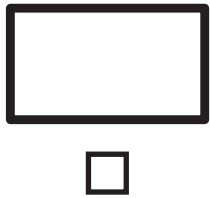
How many games had 2 - 3 goals?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a kite



5 Round to the nearest whole number:

7.3 →

6  $\frac{1}{5}$  of 35 =

$\frac{1}{4}$  of 36 =

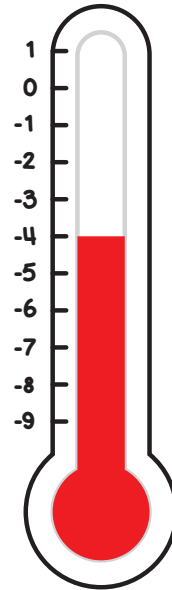
$\frac{1}{7}$  of 63 =

7  $2 \times \frac{1}{9} =$

8 Simplify:

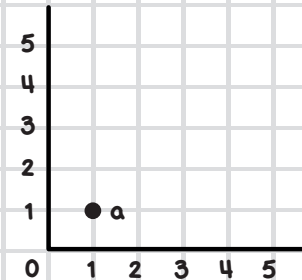
$\frac{5}{15} =$

4 °C



Temperature °C

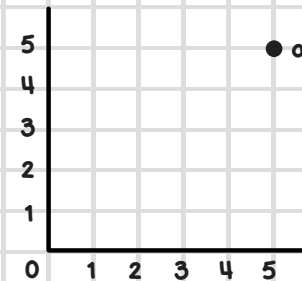
2



Write down the co-ordinates for point a

A = ( , )

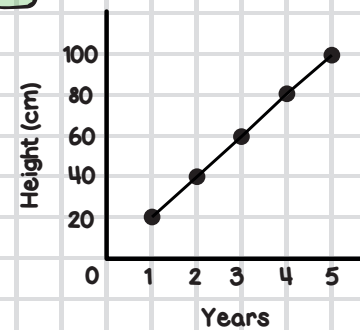
3



What is the x co-ordinate of point a?

x =

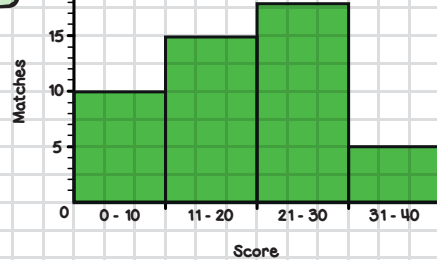
10



A pupil recorded the height of a plant over 5 years.

What was the height at 3 years?

9 A Team's Netball Scores for a Season



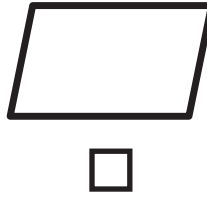
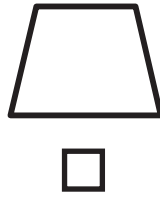
How many matches did they score 21 - 30 points?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a parallelogram



5 Round to the nearest whole number:

5.5 →

6  $\frac{1}{6}$  of 54 =

$\frac{1}{9}$  of 63 =

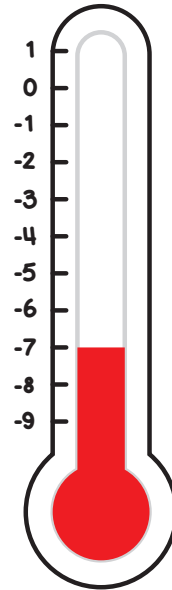
$\frac{1}{7}$  of 49 =

7  $8 \times \frac{1}{9} =$

8 Simplify:

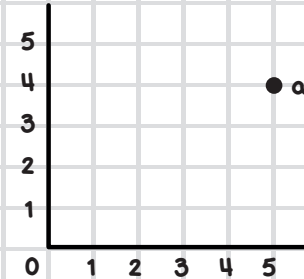
$\frac{10}{30} =$

4 °C



Temperature °C

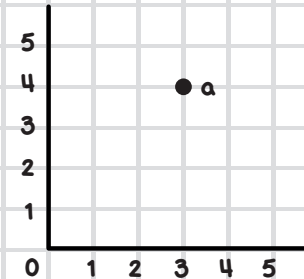
2



Write down the co-ordinates for point a

A = ( , )

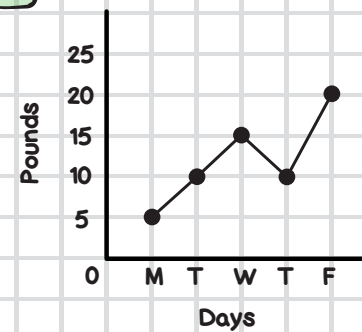
3



What is the x co-ordinate of point a?

x =

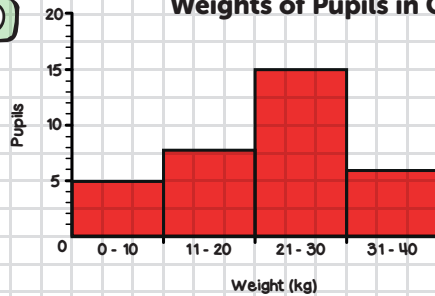
10



A Sweet Shop owner recorded their sales over 5 days.

What was the value of sweets sold on Thursday?

9 Weights of Pupils in Class 3B



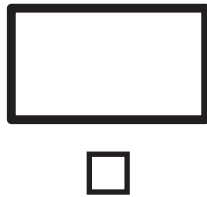
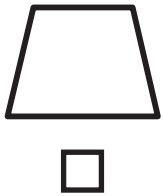
How many pupils weighed 21 - 30 kilograms?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

8.8 →

6  $\frac{1}{9}$  of 81 =

$\frac{1}{7}$  of 49 =

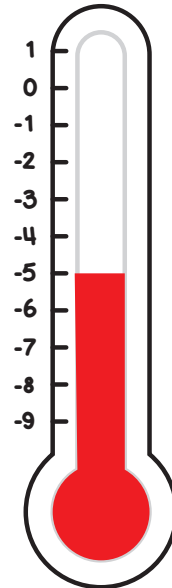
$\frac{1}{6}$  of 36 =

7  $6 \times \frac{1}{7} =$

8 Simplify:

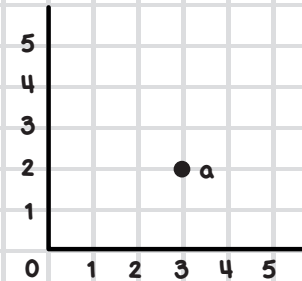
$\frac{2}{6} =$

4 °C



Temperature °C

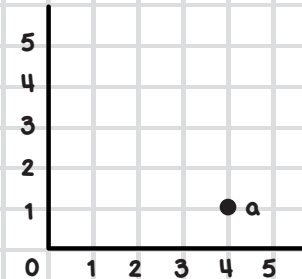
2



Write down the co-ordinates for point a

A = ( , )

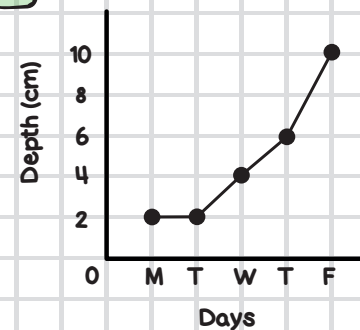
3



What is the y co-ordinate of point a?

y =

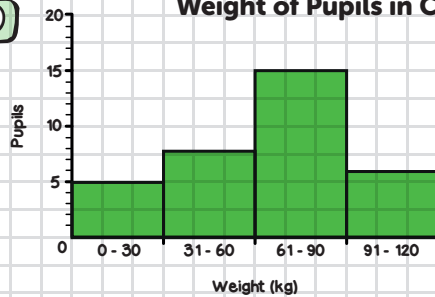
10



Pupils recorded the depth of snow over 5 days.

What was the depth of the snow on Friday?

9 Weight of Pupils in Class 3B



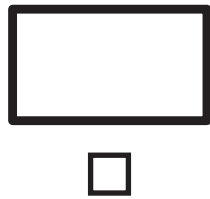
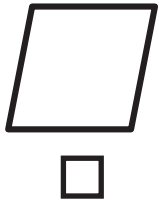
How many pupils weighed 0 - 30 kilograms?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a rhombus



5 Round to the nearest whole number:

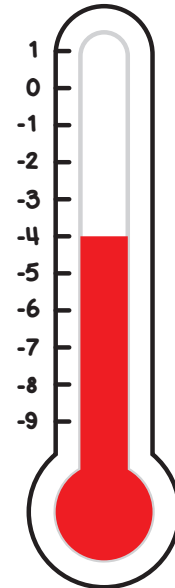
6.2 →

6  $\frac{1}{9}$  of 81 =  
 $\frac{1}{7}$  of 49 =  
 $\frac{1}{6}$  of 36 =

7  $4 \times \frac{1}{9} =$

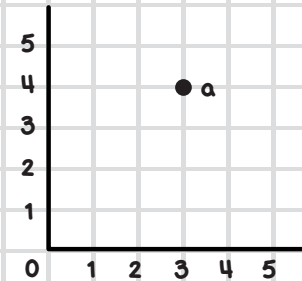
8 Simplify:  
 $\frac{10}{20} =$

4 °C



Temperature °C

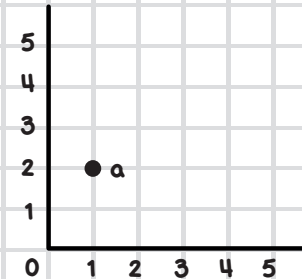
2



Write down the co-ordinates for point a

A = ( , )

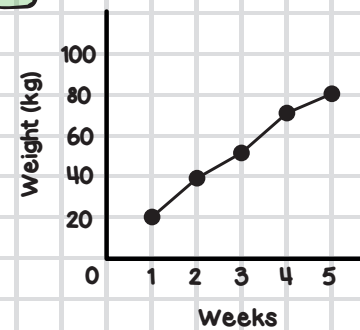
3



What is the x co-ordinate of point a?

x =

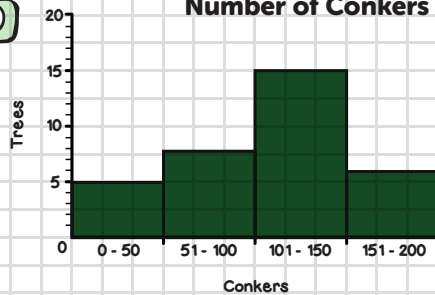
10



A vet recorded the weight of a new born horse over 5 weeks.

What was the weight of the horse at week 2?

9 Number of Conkers Found



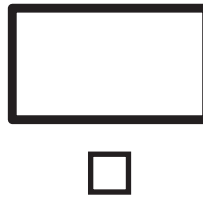
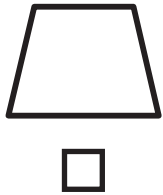
How many trees had 51 - 100 conkers?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

4.7 →

6  $\frac{1}{9}$  of 81 =

$\frac{1}{7}$  of 49 =

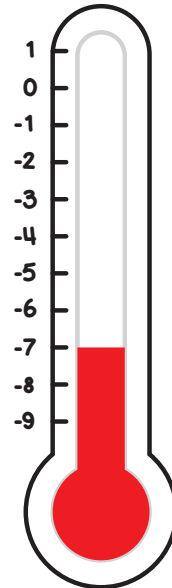
$\frac{1}{6}$  of 36 =

7  $4 \times \frac{1}{5} =$

8 Simplify:

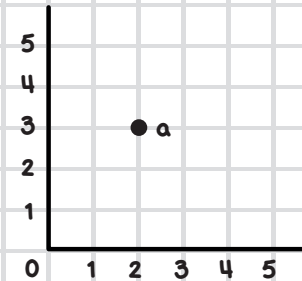
$\frac{5}{10} =$

4 °C



Temperature °C

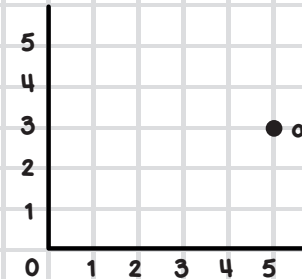
2



Write down the co-ordinates for point a

A = ( , )

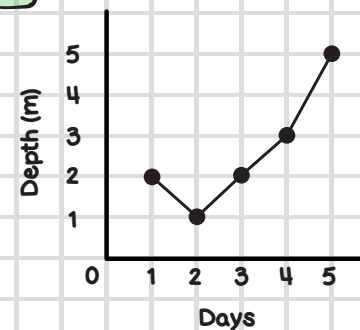
3



What is the y co-ordinate of point a?

y =

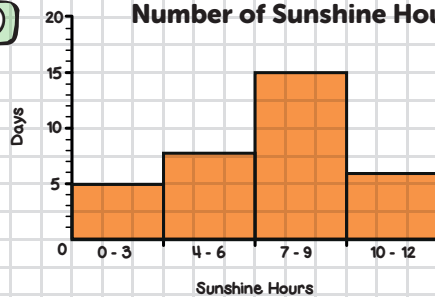
10



Pupils recorded the depth of their pond over 5 days.

What was the depth of the pond on day 4?

9 Number of Sunshine Hours per day



How many days had 0 - 3 sunshine hours?

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



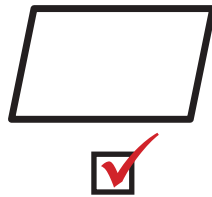
# ANSWERS

SAFE 14

SET: 1

/10

1 Tick the quadrilateral that is a parallelogram



5 Round to the nearest whole number:

$$3.4 \rightarrow 3$$

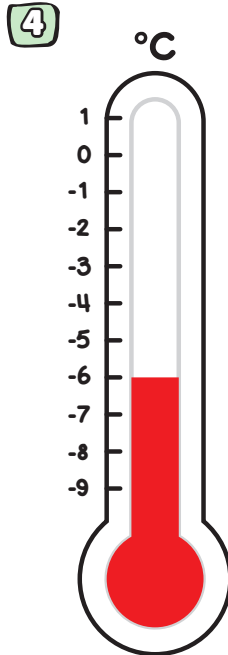
6  $\frac{1}{7}$  of 56 = 8

$\frac{1}{4}$  of 32 = 8

$\frac{1}{6}$  of 48 = 8

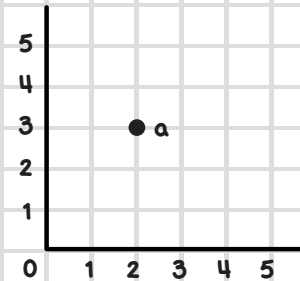
7  $8 \times \frac{1}{9} =$   
 $\frac{8}{9}$

8 Simplify:  
 $\frac{10}{40} = \frac{1}{4}$



Temperature  
**-6** °C

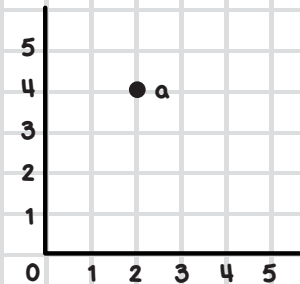
2



Write down the co-ordinates for point a

A = ( **2** , **3** )

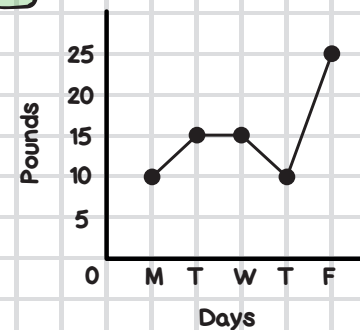
3



What is the y co-ordinate of point a?

y = **4**

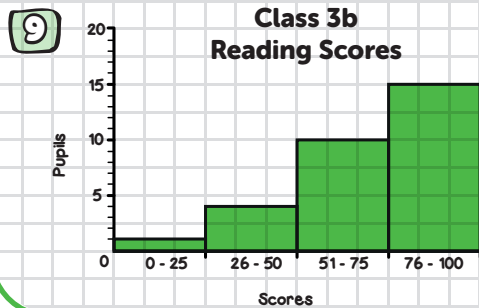
10



A school tuck shop recorded its sales over one week.

How much money did the sales produce on Wednesday?

**£15**



How many pupils scored more than 75 marks?

**15**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



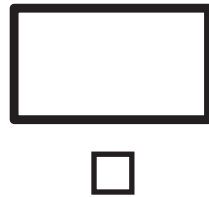
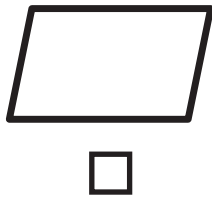
# ANSWERS

SAFE 14

SET: 2

/10

1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

$$6.2 \rightarrow 6$$

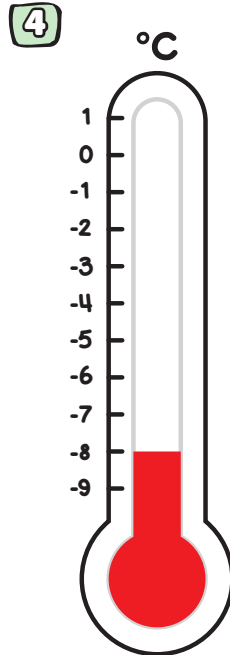
6  $\frac{1}{7}$  of 56 = 8

$\frac{1}{4}$  of 32 = 8

$\frac{1}{6}$  of 48 = 8

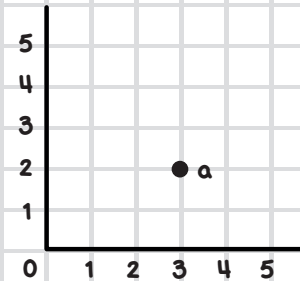
7  $4 \times \frac{1}{6} =$   
 $\frac{4}{6}$

8 Simplify:  
 $\frac{5}{20} = \frac{1}{4}$



Temperature  
**-8** °C

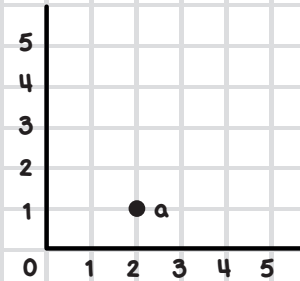
2



Write down the co-ordinates for point a

A = ( **3** , **2** )

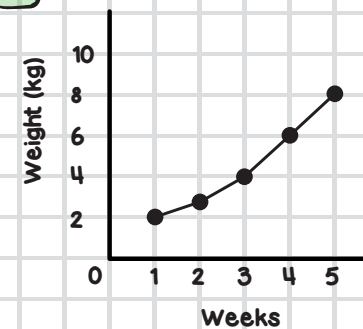
3



What is the x co-ordinate of point a?

x = **2**

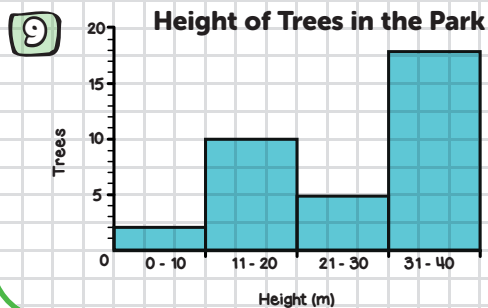
10



A vet recorded the weight of a puppy over 5 weeks.

How much did the puppy weigh in week 3?

**4kg**



How many trees were 21 - 30m tall?

**5**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



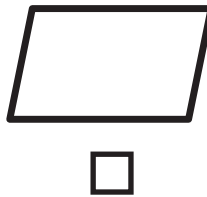
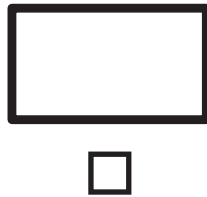
# ANSWERS

SAFE 14

SET: 3

/10

1 Tick the quadrilateral that is a kite



5 Round to the nearest whole number:

$$1.5 \rightarrow 2$$

6  $\frac{1}{6}$  of 36 = 6

$\frac{1}{9}$  of 54 = 6

$\frac{1}{9}$  of 81 = 9

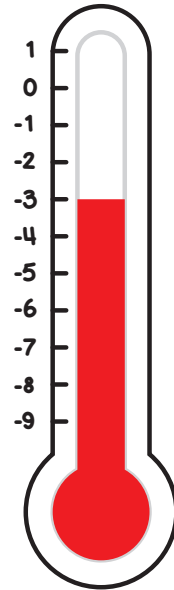
7  $7 \times \frac{1}{9} =$

$$\frac{7}{9}$$

8 Simplify:

$$\frac{2}{10} = \frac{1}{5}$$

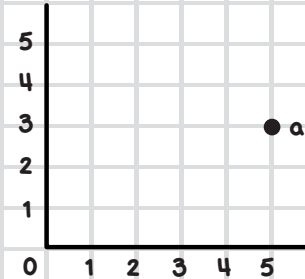
4  $^{\circ}\text{C}$



Temperature

**-3**  $^{\circ}\text{C}$

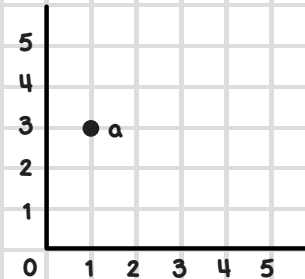
2



Write down the co-ordinates for point a

$$A = ( 5 , 3 )$$

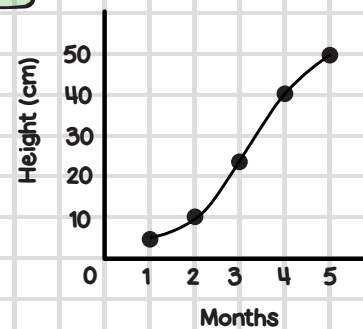
3



What is the x co-ordinate of point a?

$$x = 1$$

10

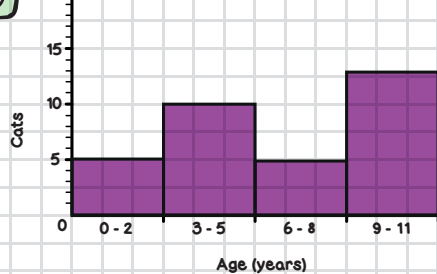


A gardener recorded the height of a plant over 5 months.

How tall was the plant at 4 months?

**40cm**

9 Ages of Cats at the Rescue Centre



How many cats were 3 - 5 years old?

**10**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



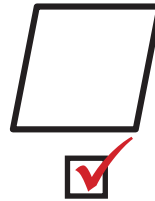
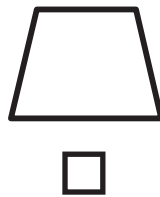
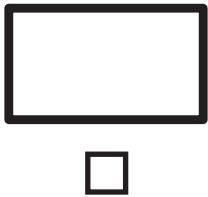
# ANSWERS

SAFE 14

SET: 4

/10

1 Tick the quadrilateral that is a rhombus



5 Round to the nearest whole number:

$$8.1 \rightarrow 8$$

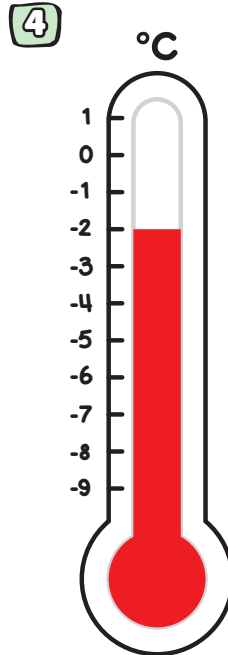
6  $\frac{1}{6}$  of 36 = 6

$\frac{1}{9}$  of 54 = 6

$\frac{1}{9}$  of 81 = 9

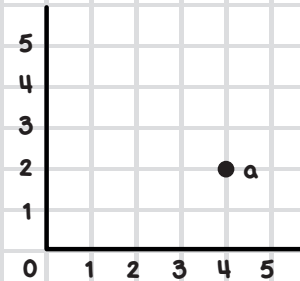
7  $4 \times \frac{1}{8} =$   
 $\frac{4}{8}$

8 Simplify:  
 $\frac{10}{50} = \frac{1}{5}$



Temperature  
**-2** °C

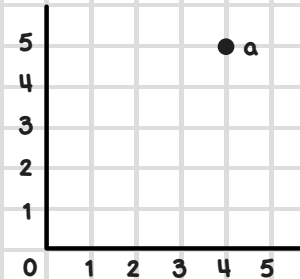
2



Write down the co-ordinates for point a

A = ( **4** , **2** )

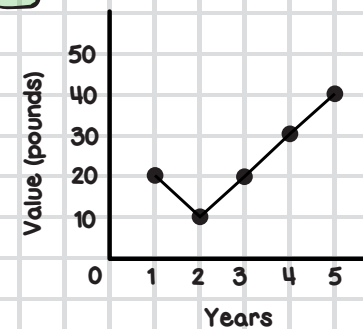
3



What is the y co-ordinate of point a?

y = **5**

10

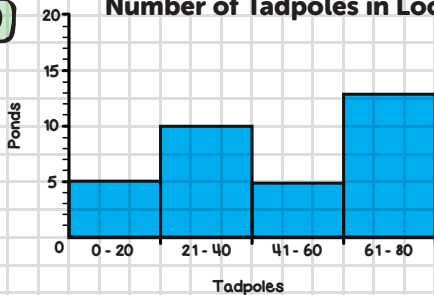


A pupil recorded the value of their card collection over 5 years.

What was the value at 3 years?

**£20**

9 Number of Tadpoles in Local Ponds



How many ponds had 41 - 60 tadpoles?

**5**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



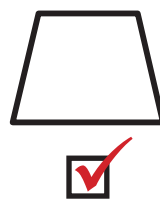
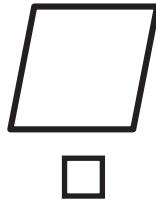
# ANSWERS

SAFE 14

SET: 5

/10

1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

$$3.9 \rightarrow 4$$

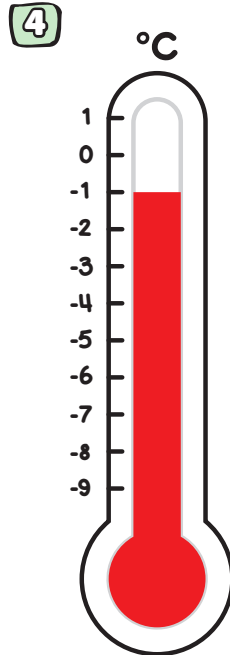
6  $\frac{1}{7}$  of 42 = 6

$\frac{1}{6}$  of 42 = 7

$\frac{1}{7}$  of 49 = 7

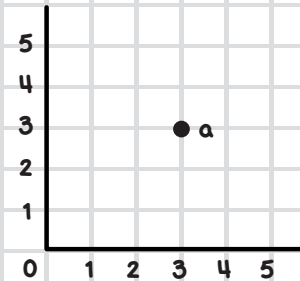
7  $3 \times \frac{1}{7} = \frac{3}{7}$

8 Simplify:  $\frac{2}{10} = \frac{1}{5}$



Temperature  
-1 °C

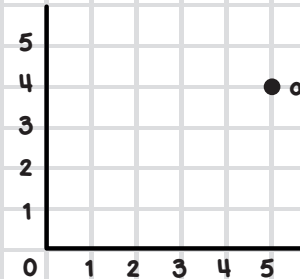
2



Write down the co-ordinates for point a

A = ( 3 , 3 )

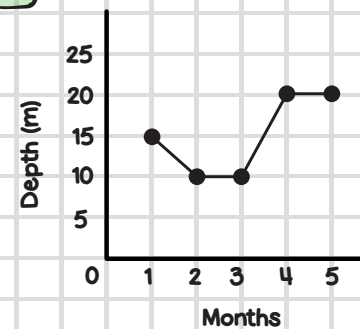
3



What is the y co-ordinate of point a?

y = 4

10



Pupils recorded the depth of a river over 5 months.

What was the depth at 4 months?

20m

9 Number of Goals in Football Games



How many games had 2 - 3 goals?

15

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



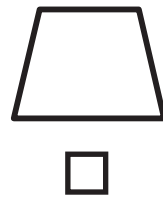
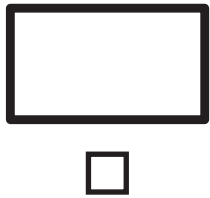
# ANSWERS

SAFE 14

SET: 6

/10

1 Tick the quadrilateral that is a kite



5 Round to the nearest whole number:

$$7.3 \rightarrow 7$$

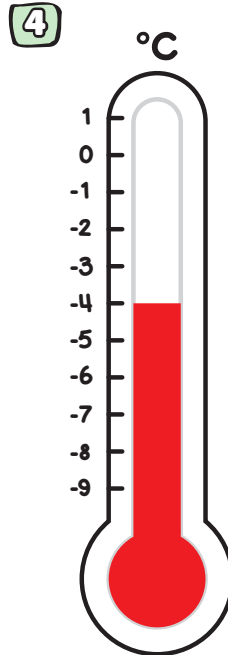
6  $\frac{1}{5}$  of 35 = 7

$\frac{1}{4}$  of 36 = 9

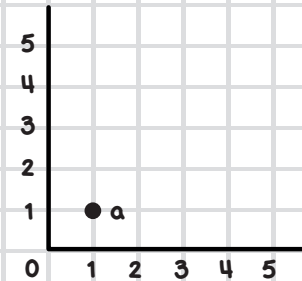
$\frac{1}{7}$  of 63 = 9

7  $2 \times \frac{1}{9} =$   
 $\frac{2}{9}$

8 Simplify:  
 $\frac{5}{15} = \frac{1}{3}$



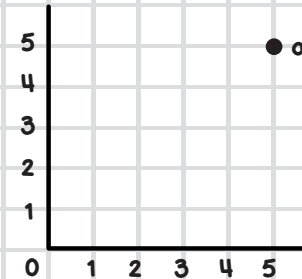
2



Write down the co-ordinates for point a

$A = (1, 1)$

3

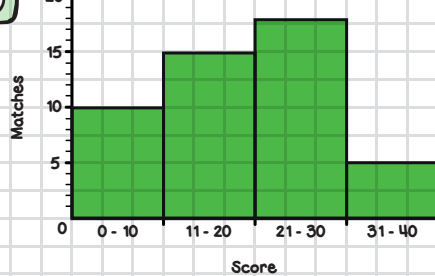


What is the x co-ordinate of point a?

$x = 5$

9

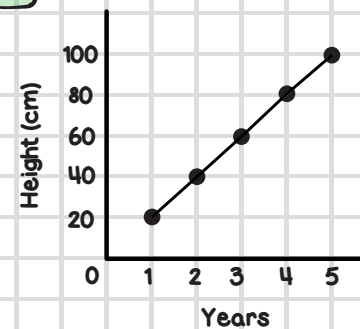
A Team's Netball Scores for a Season



How many matches did they score 21 - 30 points?

**18**

10



A pupil recorded the height of a plant over 5 years.

What was the height at 3 years?

**60cm**



MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



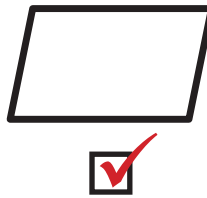
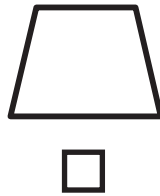
# ANSWERS

SAFE 14

SET: 7

/10

1 Tick the quadrilateral that is a parallelogram



5 Round to the nearest whole number:

$$5.5 \rightarrow 6$$

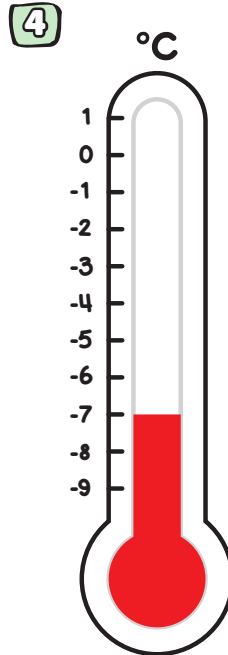
6  $\frac{1}{6}$  of 54 = 9

$\frac{1}{9}$  of 63 = 7

$\frac{1}{7}$  of 49 = 7

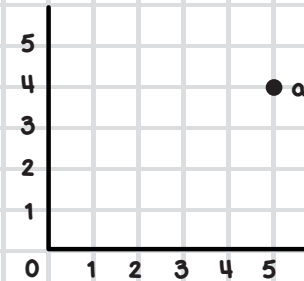
7  $8 \times \frac{1}{9} =$   
 $\frac{8}{9}$

8 Simplify:  
 $\frac{10}{30} = \frac{1}{3}$



Temperature  
**-7** °C

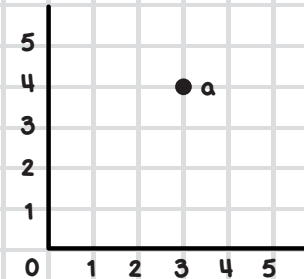
2



Write down the co-ordinates for point a

A = ( **5** , **4** )

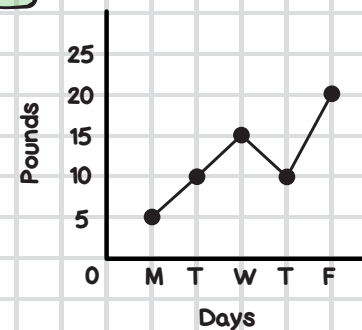
3



What is the x co-ordinate of point a?

x = **3**

10

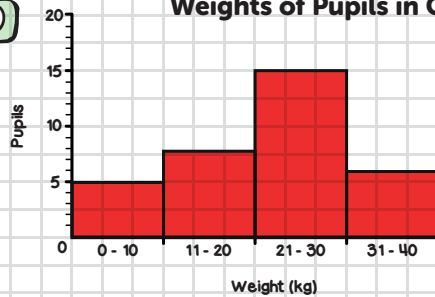


A Sweet Shop owner recorded their sales over 5 days.

What was the value of sweets sold on Thursday?

**£10**

9 Weights of Pupils in Class 3B



How many pupils weighed 21 - 30 kilograms?

**15**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



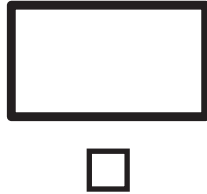
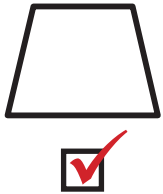
# ANSWERS

SAFE 14

SET: 8

/10

1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

$$8.8 \rightarrow 9$$

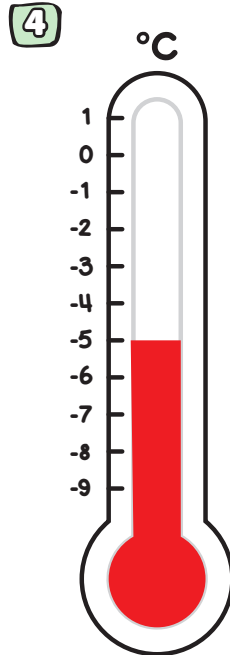
6  $\frac{1}{9}$  of 81 = 9

$\frac{1}{7}$  of 49 = 7

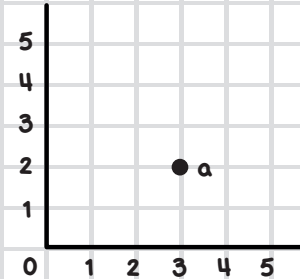
$\frac{1}{6}$  of 36 = 6

7  $6 \times \frac{1}{7} =$   
 $\frac{6}{7}$

8 Simplify:  
 $\frac{2}{6} = \frac{1}{3}$



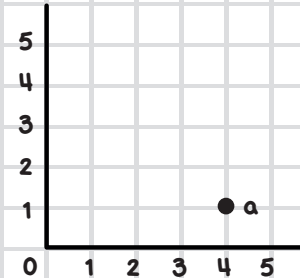
2



Write down the co-ordinates for point a

A = ( **3** , **2** )

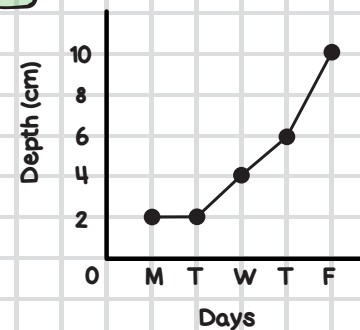
3



What is the y co-ordinate of point a?

y = **1**

10

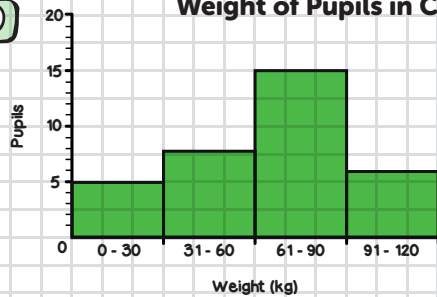


Pupils recorded the depth of snow over 5 days.

What was the depth of the snow on Friday?

**10cm**

9 Weight of Pupils in Class 3B



How many pupils weighed 0 - 30 kilograms?

**5**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



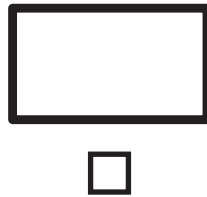
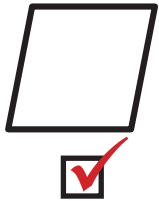
# ANSWERS

SAFE 14

SET: 9

/10

1 Tick the quadrilateral that is a rhombus



5 Round to the nearest whole number:

$$6.2 \rightarrow 6$$

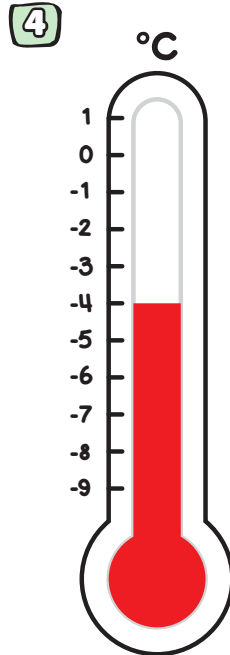
6  $\frac{1}{9}$  of 81 = 9

$\frac{1}{7}$  of 49 = 7

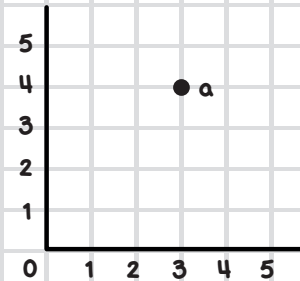
$\frac{1}{6}$  of 36 = 6

7  $4 \times \frac{1}{9} =$   
 $\frac{4}{9}$

8 Simplify:  
 $\frac{10}{20} = \frac{1}{2}$



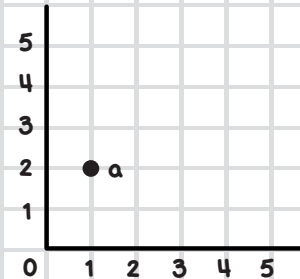
2



Write down the co-ordinates for point a

$A = (3, 4)$

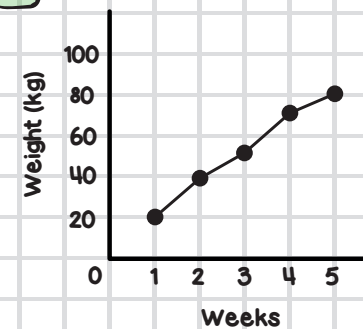
3



What is the x co-ordinate of point a?

$x = 1$

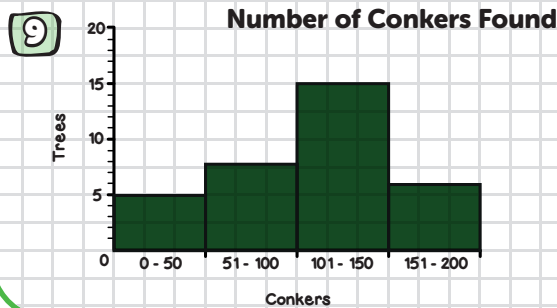
10



A vet recorded the weight of a new born horse over 5 weeks.

What was the weight of the horse at week 2?

**40kg**



How many trees had 51 - 100 conkers?

**8**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....



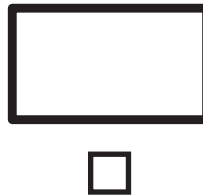
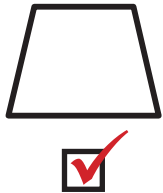
# ANSWERS

SAFE 14

SET: 10

/10

1 Tick the quadrilateral that is a trapezium



5 Round to the nearest whole number:

$$4.7 \rightarrow 5$$

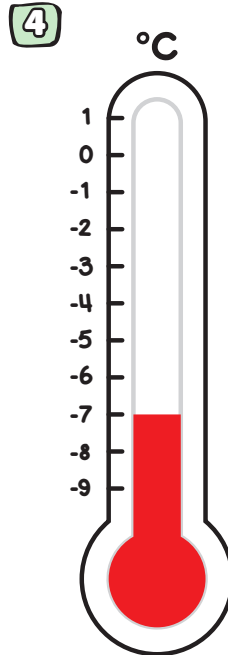
6  $\frac{1}{9}$  of 81 = 9

$\frac{1}{7}$  of 49 = 7

$\frac{1}{6}$  of 36 = 6

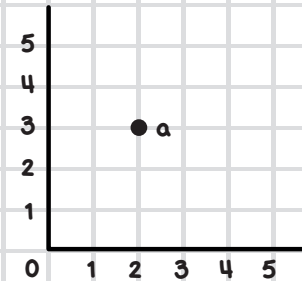
7  $4 \times \frac{1}{5} =$   
 $\frac{4}{5}$

8 Simplify:  
 $\frac{5}{10} = \frac{1}{2}$



Temperature  
**-7** °C

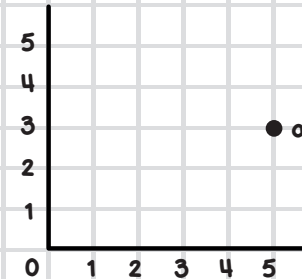
2



Write down the co-ordinates for point a

A = ( **2** , **3** )

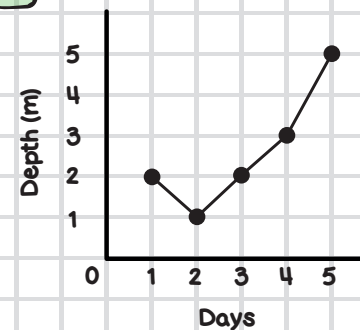
3



What is the y co-ordinate of point a?

y = **3**

10

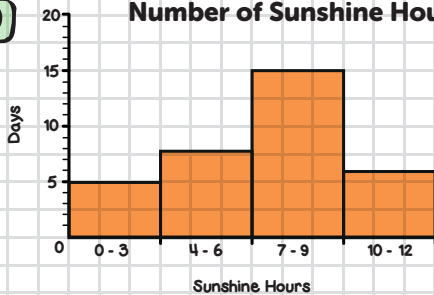


Pupils recorded the depth of their pond over 5 days.

What was the depth of the pond on day 4?

**3m**

9 Number of Sunshine Hours per day



How many days had 0 - 3 sunshine hours?

**5**

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....

