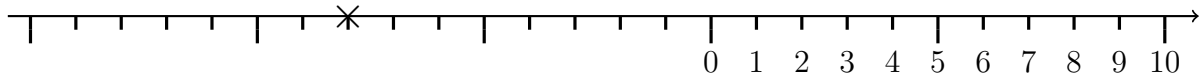


Sample questions colour coded to show what most students in year 7 (mix) group knew prior to the intervention and [after the intervention](#).

1. A number is shown with a cross ( $\times$ ) on this number line.



Write down the number marked with the cross.

2. Write the following numbers in order.

-1   -3   8   -2   1   5   -11

3. Here is an inequality, in  $k$ , shown on a number line.

$k$  is an integer.



List all the possible values of  $k$ .

4. Complete this calculation  $9 \times 10 = \dots\dots$

5. Complete this calculation  $10 \times 400 = \dots\dots$

6. Use the information that  $8 \times 3 = 24$

to find the value of  $8 \times 30$

7. Here is a number sequence.

4   8   12   16   20   24   28

- (i) Complete this statement about the sequence.

All the numbers in the sequence are  $\dots\dots\dots$  of 4

- (ii) Write down the next term in the sequence  $\dots\dots\dots$

8. Esme buys 2 packets of croissants for breakfast club.

Each packet of croissants contains 8 croissants.

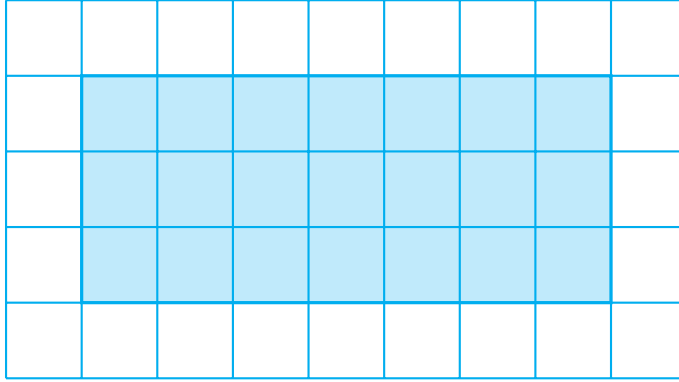
How many croissants does she buy altogether?

9. Justin buys 5 boxes of chocolate rolls.

Each box contains 5 chocolate rolls.

How many chocolate rolls does he buy altogether?

10. The shaded shape is drawn on a grid of centimetre squares.

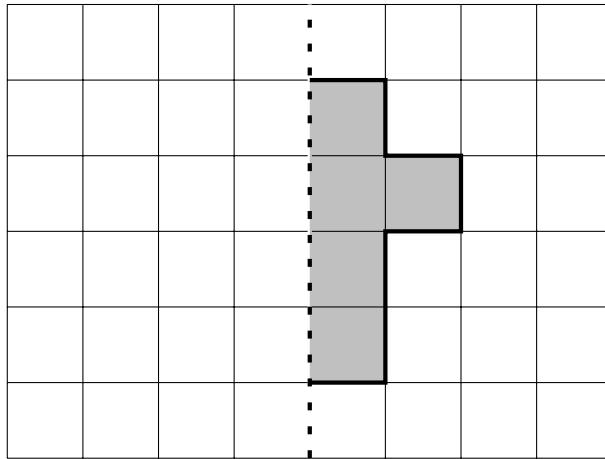


Find the area of the shaded shape.

11. Here is a rectangle on a centimetre grid. {see grid for Q10}

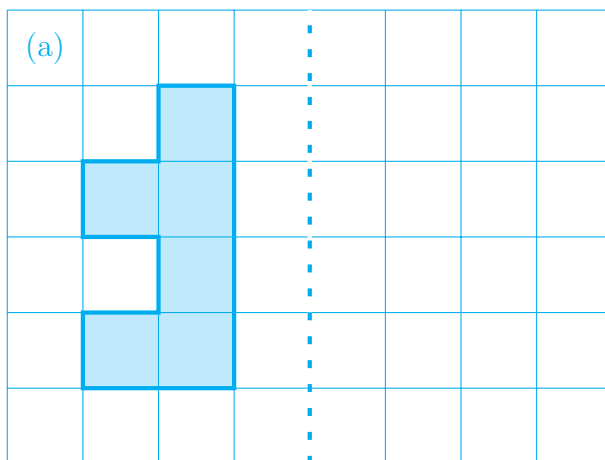
Find the perimeter of the shaded rectangle.

12. Reflect the shaded shape in the mirror line.



mirror  
line

13. Reflect the shaded shape in the mirror line.



mirror  
line

14. Work out  $\frac{1}{9}$  of 54

15. Simplify  $m + m + m + m + m + m$

16. Simplify  $9f - 3f$

17. A tea shop has  $c$  slices of chocolate cake, and  $m$  slices of marble cake for sale.

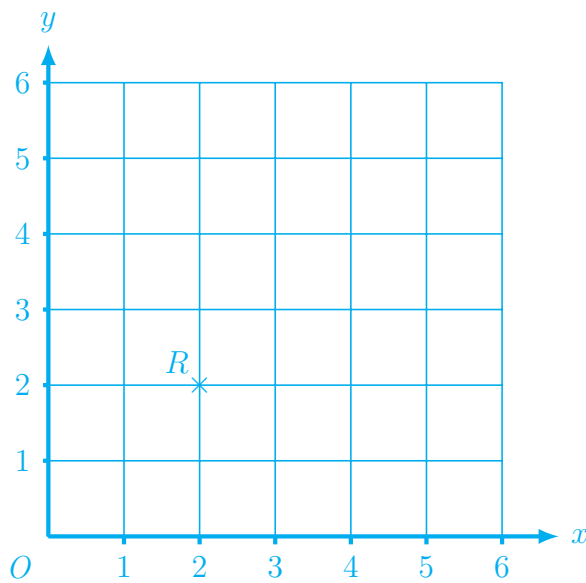
Write down an expression for the total number of slices of cake for sale in the tea shop.

18. Use your calculator to work out  $\frac{10.26}{3.8}$

19. Use your calculator to work out  $7.9^2$

Give your answer as a decimal.

20. Here is a coordinate grid.

(a) On the grid, mark with a cross ( $\times$ )

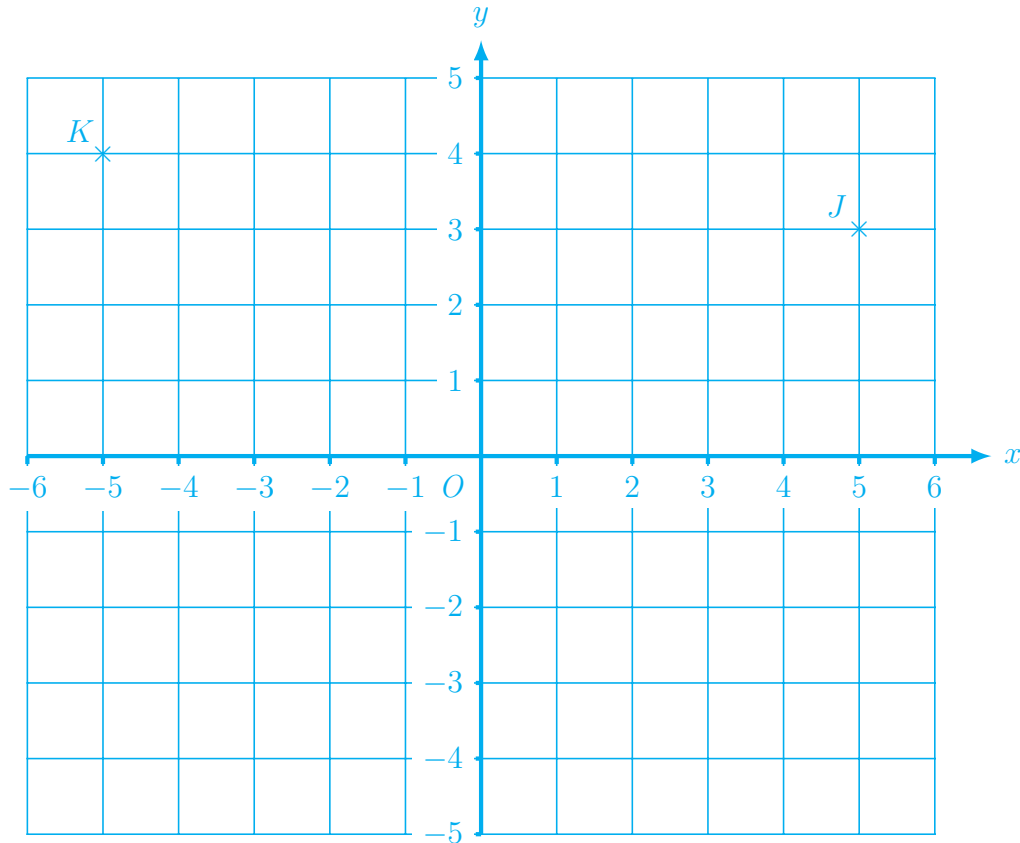
(i) the point (2 , 5) and label this point P

(ii) the point (4 , 2) and label this point Q

PQR is a triangle.

(b) Draw the triangle PQR

21. Here is a coordinate grid.



Write down the coordinates of the point

- (i) J (.....,.....)
- (ii) K (.....,.....)

22. A guest house has 7 bath mats.

The guest house washes 3 of the bath mats.

The rest of the bath mats are ready to use.

How many bath mats are ready to use?

23. There are 47 spring rolls in a restaurant.

24 spring rolls are eaten and no more spring rolls are made.

How many spring rolls are still in the restaurant?

24. Riley got given 9 Valentine's day cards at school.

He received 8 Valentine's day cards in the post.

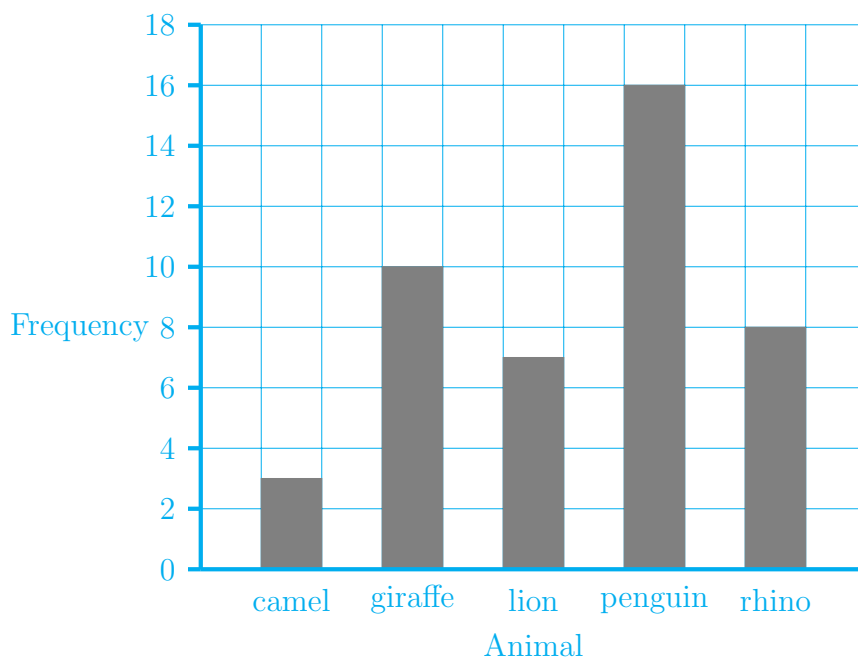
How many Valentine's day cards did Riley receive altogether?

25. Alexander is baking.

He uses 5 strawberries to decorate a cake and 64 strawberries to make strawberry jam.

How many strawberries does Alexander use altogether?

26. Lily has 13 hair bands at home.  
She buys a packet of 2 hair bands.  
How many hair bands does Lily have altogether now?
27. Karolina already has 62 stickers.  
She gets given a packet of 24 stickers.  
How many stickers does Karolina have altogether?
28. There are 37 passengers on a bus.  
At the next stop 5 passengers get on the bus, and no one gets off the bus.  
How many passengers on the bus now?
29. There are 46 passengers sitting in a bus.  
There are 15 passengers standing in the bus.  
How many passengers in the bus?
30. There are 87 passengers sitting in a train.  
There are 32 passengers standing in the train.  
How many passengers in the train?
31. Thomas buys a chicken Madras and a garlic naan.  
The chicken Madras costs £6.25  
The garlic naan costs £1.95  
  
Work out the total cost of the chicken Madras and the garlic naan.
32. The bar chart gives information about which type of animal some competition winners look after when they are zoo keepers for a day.

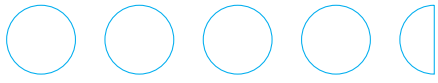
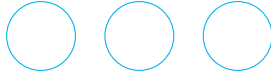



Write down the number of competition winners who are penguin keepers for the day.

33. Tahlia has work experience in a clothes shop for a week.

She records the colours of the t-shirts that are sold during the week.

The pictogram shows the numbers of black, white and taupe t-shirts sold that week.

Black	
White	
Taupe	
Rose	
Grey	

Key  represents 4 t-shirts

There were 4 rose t-shirts sold that week.


(a) Show this on the pictogram.

There were 16 grey t-shirts sold that week.

(b) Show this on the pictogram.

34. A student collects data on the final destination of trains from a station.

The pictogram shows information about the final destination of these tube trains.

Amersham	
Baker Street	
Chesham	
Edgware Road	
Hammersmith	
Uxbridge	

Key  represents 8 tube trains

Write down the mode final destination.

35. Here are the ages of 11 people on an “Ease into retirement course”.

69 62 55 61 66 57 65 53 59 55 64

Write down the mode.

36. Work out 50% of £840 {teacher note only even digits}