


Practice Paper 4

Mathematics

Read the following carefully:

1. **Do not open or turn over the page in this booklet until you are told to do so.**
 2. This is a multiple-choice test in which you have to mark your answer to each question on the separate answer sheet. You should mark only one answer for each question.
 3. Draw a firm line clearly through the rectangle next to your answer like this . If you make a mistake, rub it out as completely as you can and put in your new answer.
 4. Be sure to keep your place on the answer sheet. Mark your answer in the box that has the same number as the question.
 5. You may not be able to finish all the questions, but try to do as many as you can. If you cannot do a question, **do not waste time on it but go on to the next.** If you are not sure of an answer, choose the one you think is best.
 6. You may do any rough working on a separate sheet of paper.
 7. **Work as quickly and as carefully as you can.**
 8. You will have **50 minutes** to do the test.
-

1

3209

What is this number in words?

- A three thousand two hundred and ninety
- B three thousand two hundred and nine
- C thirty-two thousand and nine
- D three thousand and twenty-nine
- E thirty-two thousand and ninety

2

Which of these words has a vertical line of symmetry?

BOB
HOD
TOT
KID
COOK

- A BOB
- B HOD
- C TOT
- D KID
- E COOK

3

How should the time half past six in the evening be written?

- A 16:30
- B 20:30
- C 17:30
- D 06:30
- E 18:30

4

Sunita collected the following data during a survey of pupils in her class.

	Favourite outings		
	Ice Rink	Cinema	Swimming Pool
Girls	3	4	?
Boys	7	2	11

39 pupils took part in the survey.

How many girls said the swimming pool was their favourite outing?

- A 10 B 28 C 2 D 12 E 32
-

5

Carmel draws a plan of her school using a scale of 1 cm to 5 m.
On the plan, the playground is 6 cm long.

What is the real length of the playground?

- A 6 m B 30 m C 11 m D 7 m E 45 m
-

6

One display cabinet holds 38 DVDs.

How many cabinets will be needed to hold 760 DVDs?

- A 18 B 16 C 19 D 20 E 17
-

7

All the children in Class 6 were asked how many brothers and sisters they have. The results were recorded in the table below.

Number of brothers and sisters	Number of children in the class
0	3
1	12
2	8
3	1

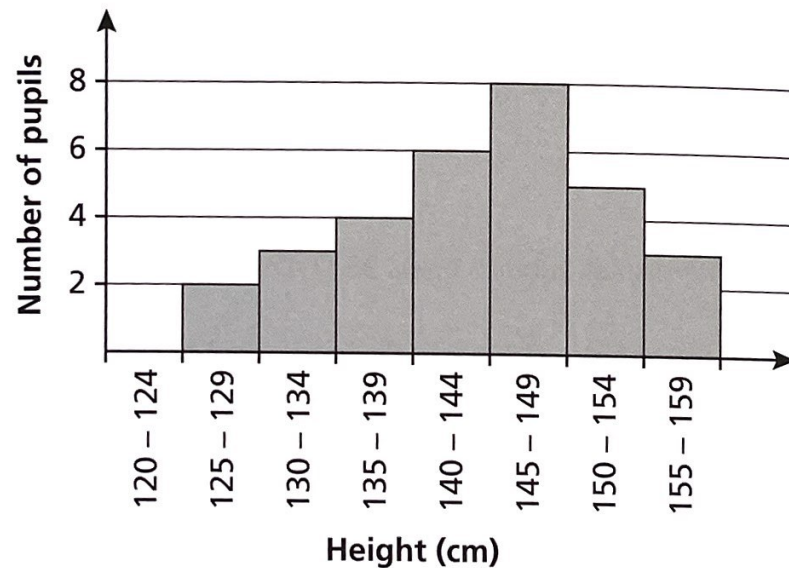
Each child made a card for each of their brothers and sisters.

How many cards were made?

- A 24 B 31 C 26 D 34 E 21

8

This bar chart shows the heights of pupils in a class.



Which statement MUST be true?

- A 2 children are 125 cm tall.
 B 8 children are at least 140 cm tall, but less than 145 cm tall.
 C 8 children are more than 144 cm tall, but less than 150 cm tall.
 D No children are taller than 158 cm.
 E 4 children are at least 150 cm tall, but less than 160.5 cm tall.

9

Which of these is NOT a square number?

- A 16 B 9 C 25 D 36 E 12
-

10

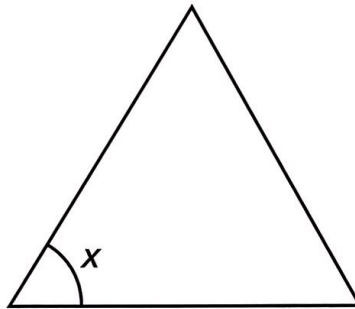
This magic grid contains number sequences that increase in steps.

4	8	12
8	?	16
12	16	20

What is the missing number?

- A 16 B 8 C 4 D 12 E 20
-

11



What is the approximate value of angle x ?

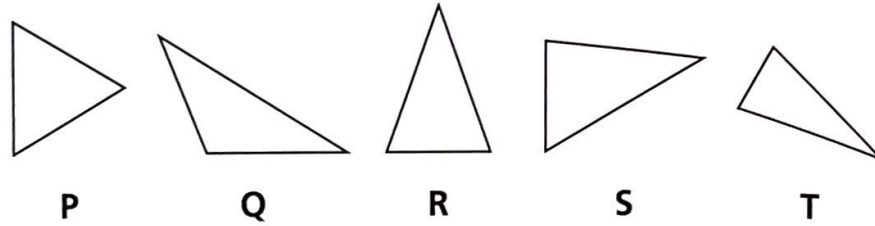
- A 30° B 90° C 120° D 60° E 45°
-

12

What fraction of 2.4 litres is 400 ml?

- A $\frac{1}{3}$ B $\frac{3}{6}$ C $\frac{1}{8}$ D $\frac{1}{6}$ E $\frac{2}{4}$

13



Which triangle has an obtuse angle?

- A P B Q C R D S E T

14

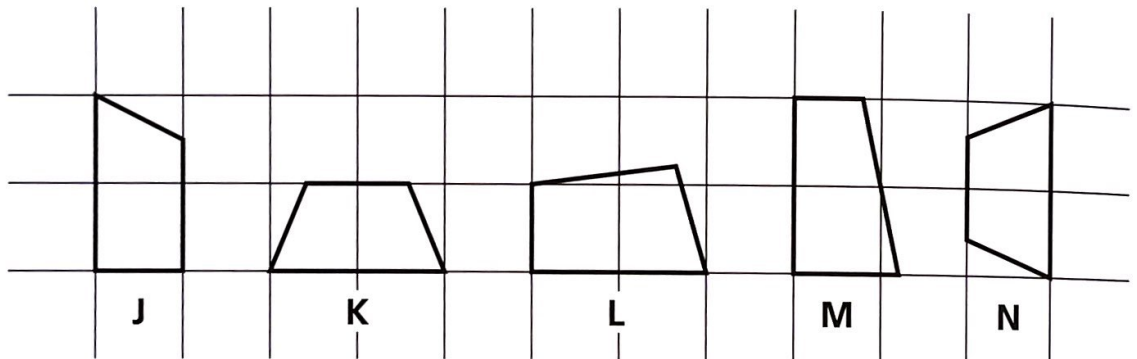
525 raffle tickets were sold by 25 pupils in one school.

If all pupils sold the same number of tickets, how many tickets did each pupil sell?

- A 41 B 31 C 21 D 19 E 20

15

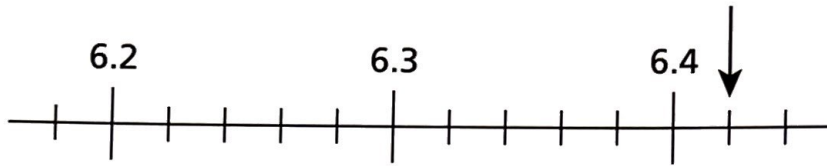
How many of the shapes below are trapeziums?



- A 0 B 2 C 3 D 4 E 5

16

Look at this number line.



What number does the arrow point to?

- A 6.42 B 6.41 C 0.02 D 6.40 E 6.32

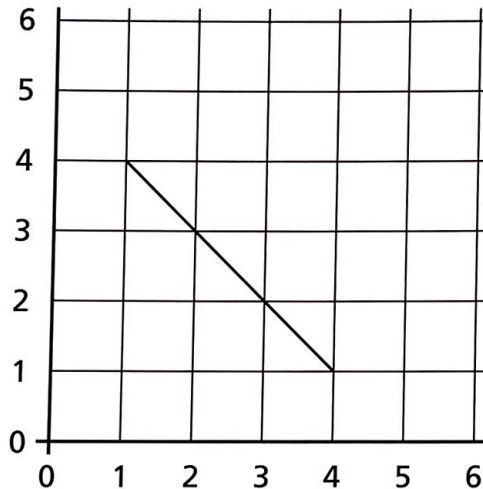
17

There are 22 boys and 33 girls in the school chess club.

What fraction of the club is made up of girls?

- A $\frac{2}{5}$ B $\frac{22}{33}$ C $\frac{3}{11}$ D $\frac{3}{5}$ E $\frac{5}{11}$

18



The end points of five lines are shown below.

Which line is parallel to the line in the diagram?

- A (1, 1) and (4, 4)
B (4, 1) and (4, 4)
C (2, 2) and (5, 5)
D (5, 2) and (2, 5)
E (4, 1) and (6, 3)

19

Look at this grid in which there are some empty spaces.

13		17	→ 45
?		19	→ 45
	8		→ 45
↓	↓	↓	
45	45	45	

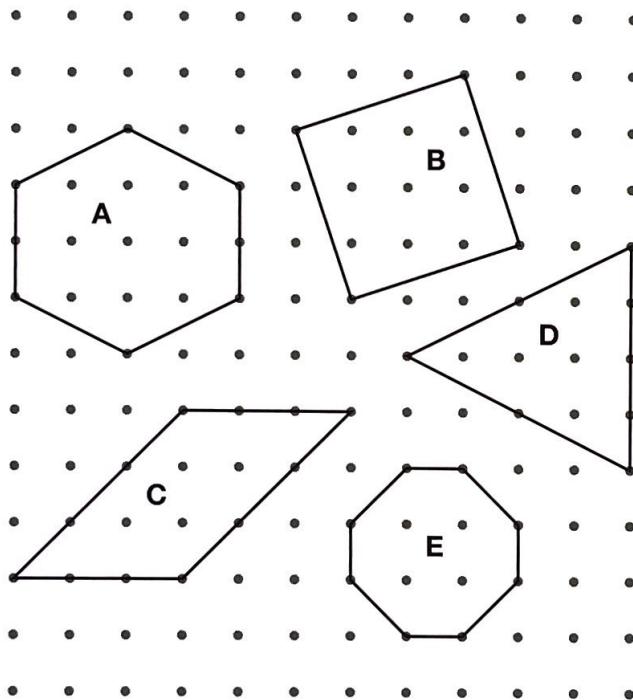
When every square is filled in, each row and each column adds up to 45.

Which number should be in the square with the question mark?

- A 15 B 28 C 9 D 22 E 4

20

These shapes are drawn on a centimetre-square grid.



Which shape has all sides of equal length?

- A A B B C C D D E E

21

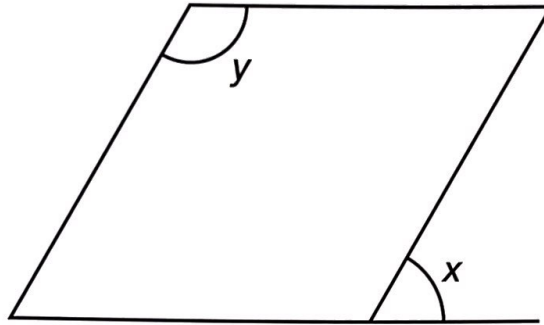
Phoebe enjoys lots of out-of-school activities.
On Sunday she does gymnastics, which costs £6.50.
On Tuesday she goes to Brownies, which costs £6.
On Wednesday she has a piano lesson, which costs £10.
On Thursday she plays the flute in a music group, which costs £7.20.
On Friday she goes to a German class, which costs £12.

What is the total cost of Phoebe's activities each week?

- A £31.70 B £21.70 C £41.70 D £35.20 E £41.80
-

22

In the parallelogram below, angle y measures 110° .



What is the value of angle x ?

- A 60° B 70° C 80° D 90° E 110°
-

23

In a survey of 85 people, every fifth person had a pierced ear.

How many people had a pierced ear?

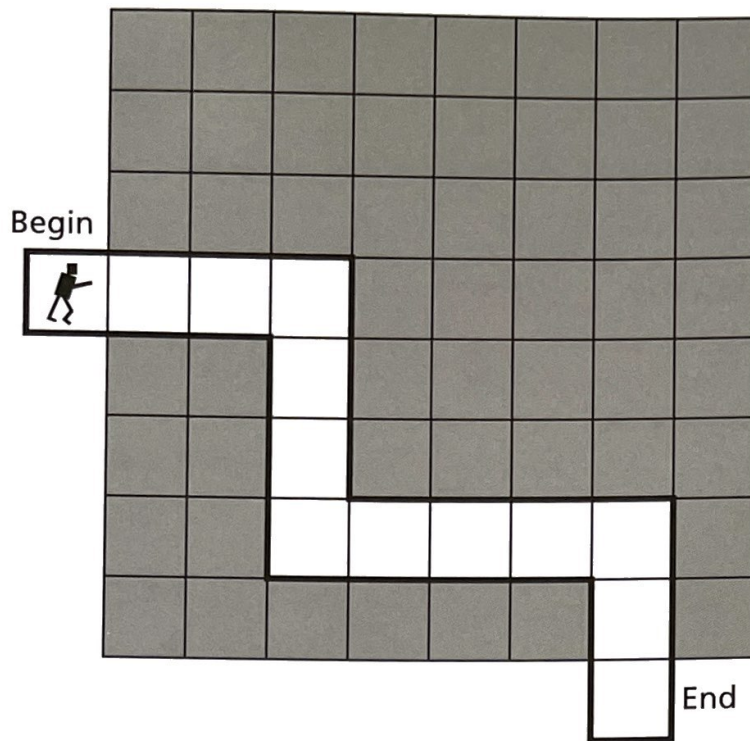
- A 0.5×85
B $85 \times \frac{1}{5}$
C $5 \div 85$
D $85 - \frac{4}{5}$
E 85×0.25

This table shows the results of a science test:

Test result	Frequency
16 – 20	3
21 – 25	1
26 – 30	5
31 – 35	8
36 – 40	12
41 – 45	11
46 – 50	2

Which one of these statements is true?

- A 43 children were tested altogether.
- B 18 children scored less than 36.
- C Less than half of the children scored above 35.
- D 38 children scored between 26 and 45.
- E A third of the children scored between 21 and 35.



Can you guide the robot along the white squares through this grid? It starts on the square marked 'Begin' and finishes on the square marked 'End'. You can only programme it to move FORWARD, TURN LEFT 90° or TURN RIGHT 90°.

Which of the instructions below will guide the robot through the grid?

- A** FORWARD 3, TURN LEFT 90°, FORWARD 3, TURN RIGHT 90°, FORWARD 4, TURN LEFT 90°, FORWARD 2.
- B** FORWARD 4, TURN RIGHT 90°, FORWARD 4, TURN LEFT 90°, FORWARD 4, TURN RIGHT 90°, FORWARD 2.
- C** FORWARD 4, TURN RIGHT 90°, FORWARD 3, TURN RIGHT 90°, FORWARD 4, TURN LEFT 90°, FORWARD 3.
- D** FORWARD 3, TURN RIGHT 90°, FORWARD 3, TURN RIGHT 90°, FORWARD 4, TURN RIGHT 90°, FORWARD 2.
- E** FORWARD 3, TURN RIGHT 90°, FORWARD 3, TURN LEFT 90°, FORWARD 4, TURN RIGHT 90°, FORWARD 2.

26

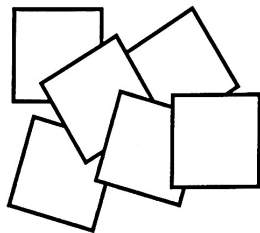
Rucksacks are being packed into trunks for a hiking trip.
Each trunk holds nine rucksacks.

How many trunks are needed for 79 rucksacks?

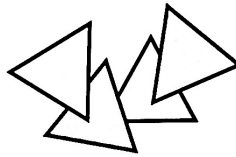
- A 7 B 8 C 9 D 10 E 11

27

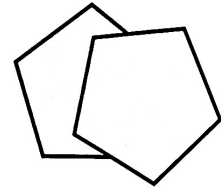
Alfie has these tiles.



6 squares

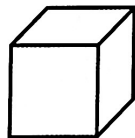


4 triangles



2 pentagons

All the sides of Alfie's tiles are the same length.
Alfie can make any of these solids with his tiles except one.



Cube

A



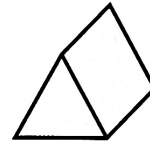
Square-based
pyramid

B



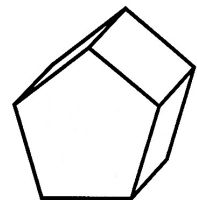
Pentagon-
based pyramid

C



Triangle
prism

D



Pentagon
prism

E

Which solid can Alfie NOT make with his tiles?

- A A B B C C D D E E

28

Jonathan gets £4.20 pocket money each week.
His younger brother David gets half as much.

If David saves all of his pocket money for a whole year, how much money will he have?

- A £2.10 B £25.20 C £52.00 D £109.20 E £218.40
-

29

Ian is now twice his sister's age.
In four years' time, Ian will be 16.

How old will his sister be then?

- A 6 B 7 C 16 D 12 E 10
-

30

Which of these is the smallest?

- A 3.6% B $\frac{1}{25}$ C 0.05 D 3.49% E $\frac{1}{15}$
-

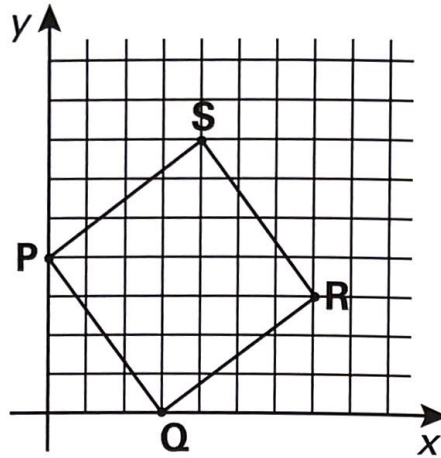
31

Ella is going on a school holiday, which costs £180.
Each week she takes £15 to school towards the cost.
So far she has paid £75.

How many more weekly payments does she need to make?

- A 3 B 5 C 6 D 7 E 9
-

32



PQRS is a square on a 1 cm square grid.

If the coordinates of point P are (a, b) and those of point R are (c, d) , what is the value of $b - d$?

- A -1 B 1 C 2 D -2 E -7

33

How many of the following shapes have at least one pair of parallel sides?

regular hexagon regular pentagon rhombus
isosceles triangle trapezium

- A 1 B 2 C 3 D 4 E 5

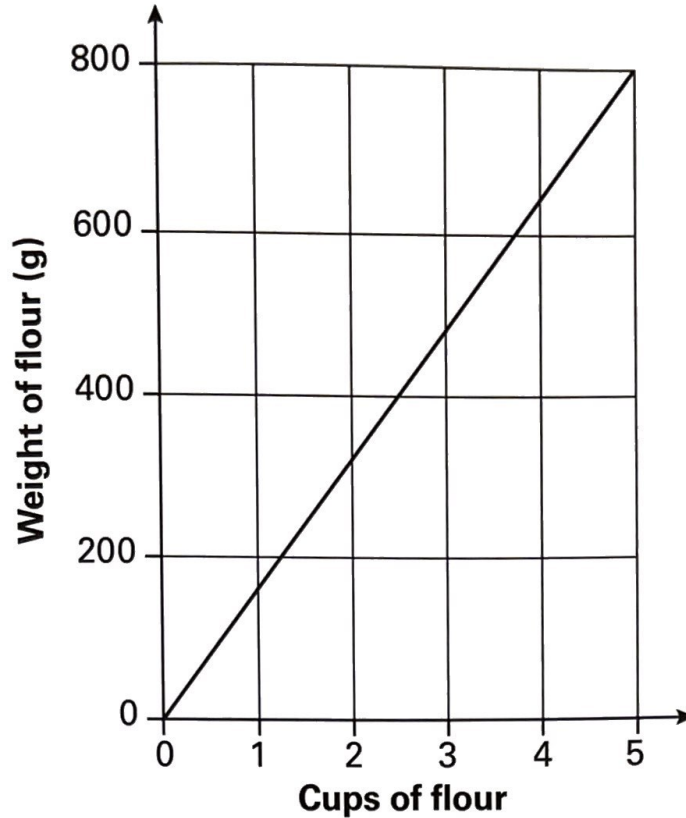
34

There are 66 passenger seats on a bus.
The bus left the garage without passengers.
At the first stop, 12 people got on.
At the second stop, 15 people got on.
At the third stop, 19 people got on and 4 got off.
At the fourth stop, 23 people got on and 8 got off.

How many empty seats are there now?

- A 5 B 10 C 9 D 11 E 57

35



Melissa and Bradley are cooking small cakes for the school bazaar. The recipe uses cups of flour instead of grams. Two cups of flour are needed for every egg.

Use the graph to work out the number of grams of flour they need if they use three eggs?

- A** 980g **B** 900g **C** 480g **D** 1 kg **E** 960g

36

The perimeter of a rectangle is 18 cm.

What could be the area of the rectangle?

- A** 18cm² **B** 18m² **C** 24cm² **D** 81 cm² **E** 36cm²

37

A stack of 6 identical green boxes weighs the same as a stack of 4 identical yellow boxes.

Which of the following statements is NOT correct?

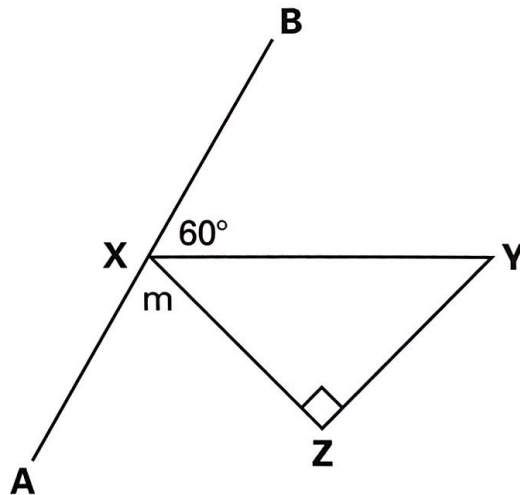
- A 3 green boxes weigh the same as 2 yellow boxes.
- B 8 yellow boxes weigh the same as 12 green boxes.
- C 30 green boxes weigh the same as 20 yellow boxes.
- D 16 yellow boxes weigh the same as 24 green boxes.
- E 36 green boxes weigh the same as 22 yellow boxes.

38

Which of these is different from the others?

- A 0.25 of 100
- B 25% of 100
- C $\frac{2}{8}$ of 100
- D 0.4 of 100
- E $\frac{1}{4}$ of 100

39

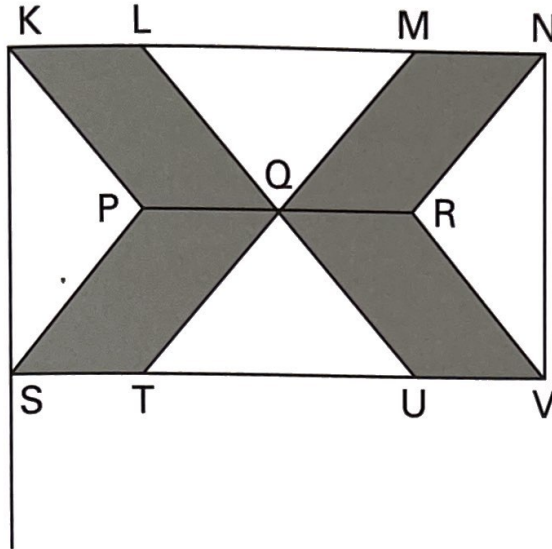


AB is a straight line.
 XYZ is an isosceles triangle.

What is the value of angle m ?

- A 120°
- B 95°
- C 60°
- D 85°
- E 75°

40



Which of these pairs of lines is perpendicular?

- A LU and MT
- B KN and NV
- C PR and TU
- D KP and LQ
- E NR and RV

41

Two sisters eat Weetbisks cereal for breakfast.

Each Weetbisks box contains 24 biscuits.

Georgina eats m Weetbisks biscuits each morning.

Jennifer is less hungry and has only n Weetbisks biscuits each day.

After four days there are four biscuits left in the Weetbisks box.

Which answer is correct?

- A $m = 2$ and $n = 3$
- B $m = 3$ and $n = 2$
- C $m = 3$ and $n = 1$
- D $m = 4$ and $n = 2$
- E $m = 1$ and $n = 4$

42

Large cans of lemonade hold 330 ml.

Small cans hold 150 ml.

On Monday, Kerry drank a large can.

On Tuesday she drank two small cans and on Wednesday she drank one small can.

Her younger brother, Sam, drank exactly half the amount that Kerry drank in total.

How much did Sam drink?

A 450 ml

B 780 ml

C 480 ml

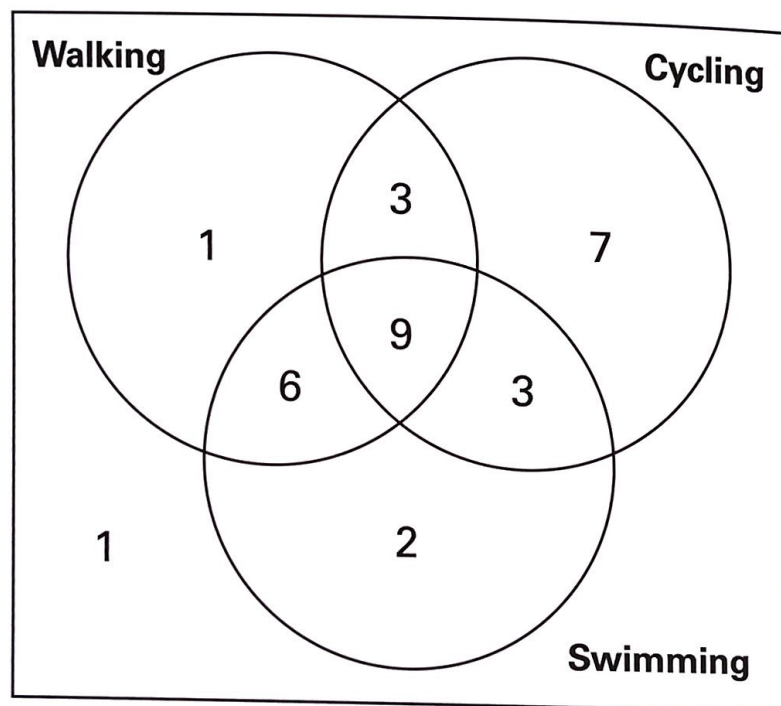
D 390 ml

E 630 ml

43

The Class 6 children were asked if they went walking, cycling or swimming during the holidays.

The number of children doing each activity was put on a Venn diagram.



What fraction of the class did swimming AND cycling?

A $\frac{15}{32}$

B $\frac{3}{32}$

C $\frac{15}{16}$

D $\frac{3}{8}$

E $\frac{12}{31}$

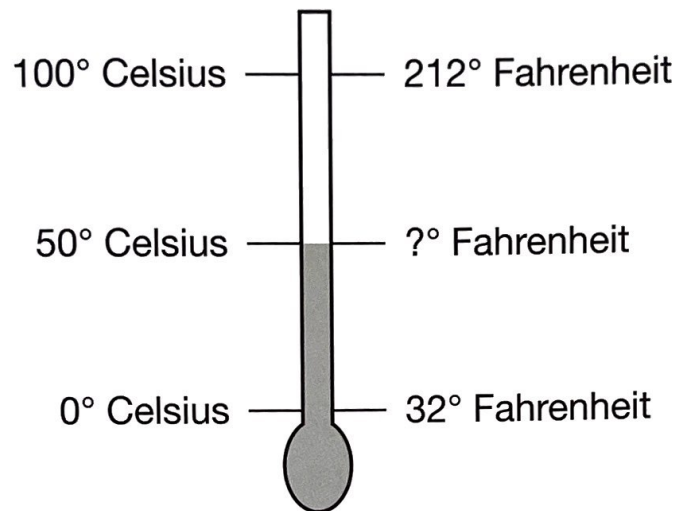
44

St Gregory's School held a book fair.
Each book cost £2.99.
250 books were bought by the children altogether.

What was the total amount of money spent by the children at the fair?

- A £20.93
- B £74.75
- C £209.30
- D £747.50
- E £2093.00

45



The diagram shows two temperatures in degrees Celsius and in degrees Fahrenheit.

What is 50 degrees Celsius in degrees Fahrenheit?

- A 50° Fahrenheit
- B 106° Fahrenheit
- C 122° Fahrenheit
- D 148° Fahrenheit
- E 162° Fahrenheit

46

1 foot is about 0.305 metres and 1 inch is about 0.025 metres.
Patrick is 4 feet 11 inches tall.

Which is closest to his height in metres?

- A 1.3m B 1.4m C 1.5m D 1.6m E 1.7m

47

Sam gets £15 pocket money **each month** from his parents.
He also gets £9.50 **each week** from his paper round.

How much money does Sam get in one year?

- A £674 B £1568 C £894 D £1274 E £294

48

Joanne's mum and dad run a café.
In summer, fruit salad is very popular.
Every day they use:

4 kg apples, which cost them £2.30 per kg

6 kg oranges, which cost them £3 per kg

5 kg bananas, which cost them £2 per kg

3 kg grapes, which cost them £4 per kg

2 kg strawberries, which cost them £3.50 per kg

How much is their daily fruit bill?

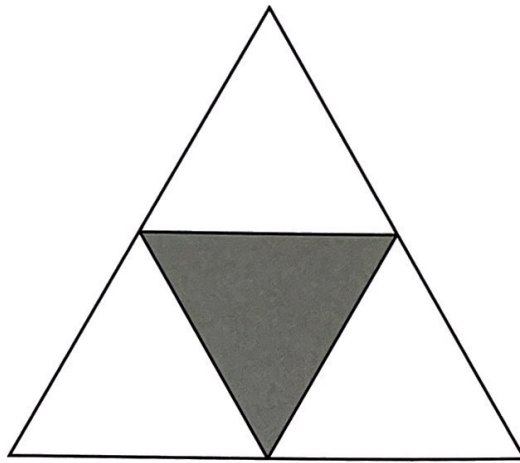
- A £14.80 B £56.20 C £27.20 D £49.20 E £51.80

49

Which of these has the greatest value?

- A 20% of 220
- B $\frac{1}{2}$ of 220
- C $\frac{2}{10}$ of 220
- D 102
- E 0.2 of 220

50



The area of the shaded triangle is 250 mm^2 .

What is the area of the large triangle?

- A 750 mm^2
- B 50 cm^2
- C 10 cm^2
- D 250 cm^2
- E 75 cm^2