



Answer Sheet

Paper Name: Maths-Mixed Set-2

Paper ID: CUSTOM-MA-65F5D37837

Full Name:



**YOU MUST ANSWER ON THIS SHEET. TAKE A PICTURE USING THE EXAM HAPPY APP
AFTERWARDS TO MARK YOUR WORK.**

How to answer:



A



B



C



D



E

How not to answer:



A



B



C



D



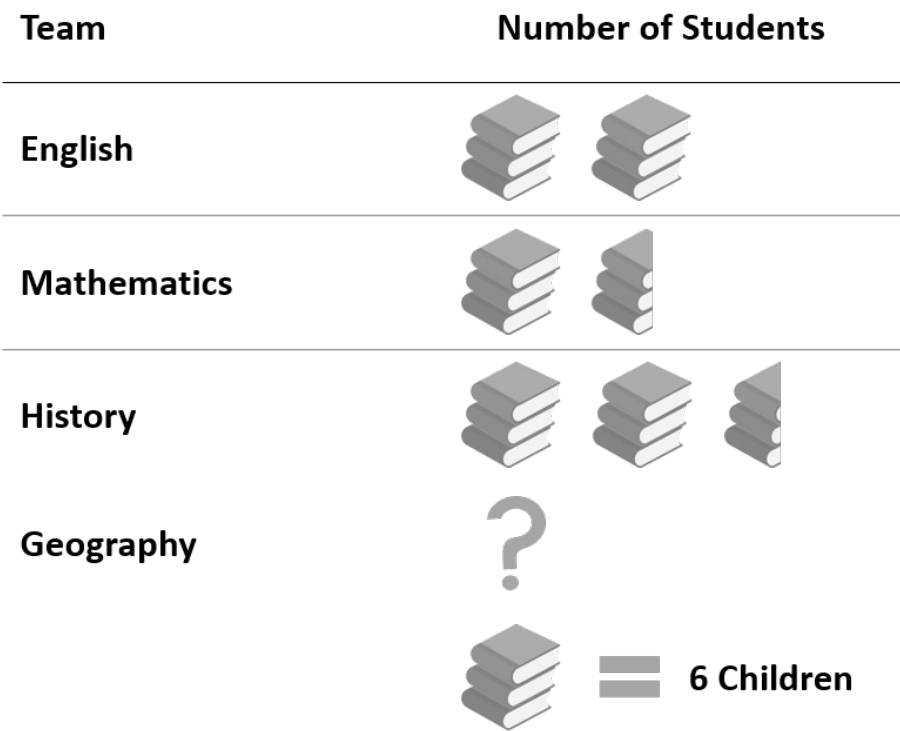
E

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01	A	B	C	D	E
02	A	B	C	D	E
03	A	B	C	D	E
04	A	B	C	D	E
05	A	B	C	D	E
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07	A	B	C	D	E
08	A	B	C	D	E
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26	A	B	C	D	E
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29	A	B	C	D	E
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31	A	B	C	D	E
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43	A	B	C	D	E
44	A	B	C	D	E
45	A	B	C	D	E
46	A	B	C	D	E
47	A	B	C	D	E
48	A	B	C	D	E
49	A	B	C	D	E
50	A	B	C	D	E

1. Redwood School asked 42 students which subjects they preferred.



How many students at Redwood preferred Geography?

- A 3
- B 4
- C 6
- D 8
- E 9

- 2.** The table below shows how many pets are owned by each student at Palm Elementary School.

Number of Pets	Number of Students	Total number of Pets
0	20	
1	16	
2	23	
3	34	

How many pets are owned altogether at Palm Elementary School?

A 110

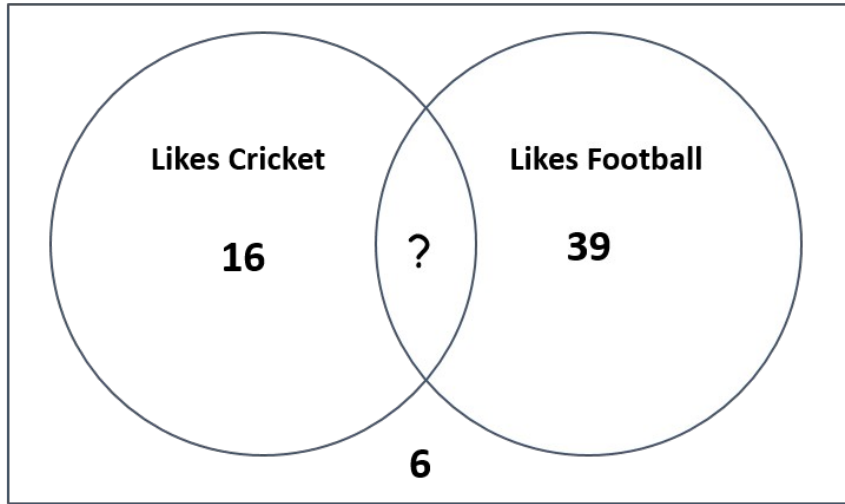
B 121

C 99

D 93

E 164

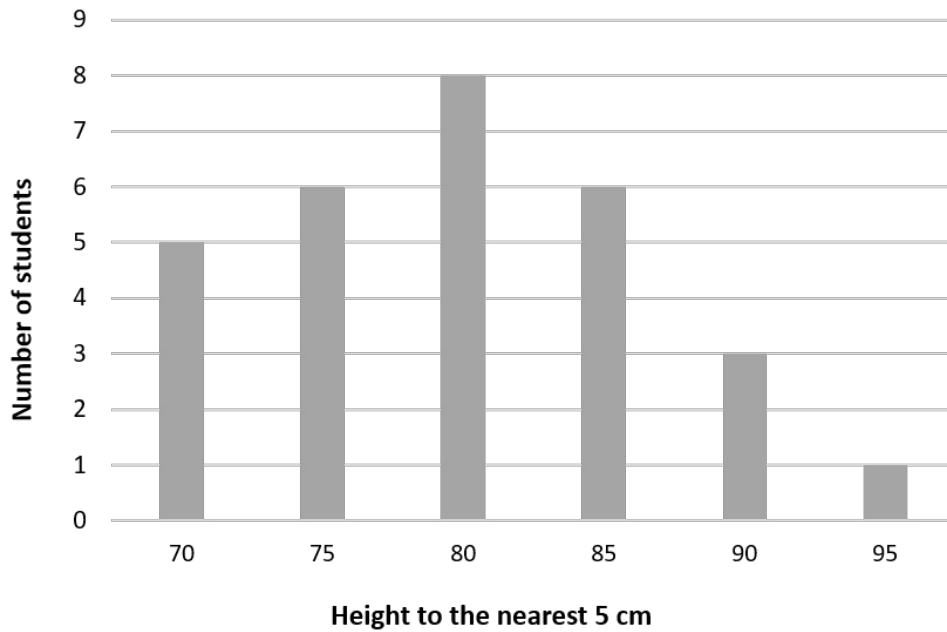
- 3.** 100 students were asked about their attitudes to certain sports. The results are shown in the following Venn diagram.



Find the number of students who like both cricket and football.

- A** 30 **B** 39 **C** 35 **D** 32 **E** 36

4. The graph below shows the heights of the children in a school class rounded to the nearest 5 cm.



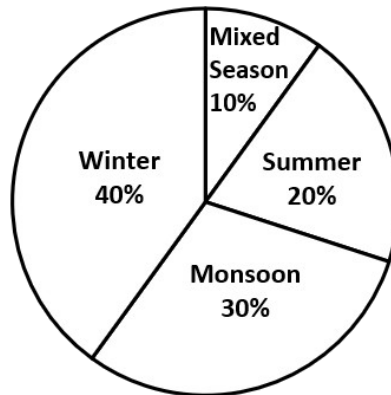
How many students are either 80 cm or 90 cm tall to the nearest 5 cm?

- A 8 B 4 C 13 D 11 E 9

5. Which of the following statements is correct?

- A $\frac{23}{25} > 0.96$ B $\frac{19}{20} < 0.92$ C $\frac{11}{200} < 0.06$ D $\frac{19}{40} > 0.50$ E $\frac{34}{50} < 0.64$

- 6.** Based on a survey of 90 members from a welfare society, Eva created a pie chart representing the distribution of their preferred season:



Which of her statements is FALSE?

- A** 9 people prefer mixed season.
 - B** 27 people prefer the monsoon
 - C** 18 more people prefer winter compared to summer.
 - D** 63 people prefer either monsoon or winter.
 - E** 15 people like summer.
- 7.** 20 students like parrots.
45 students like peacocks.
10 students like both parrots and peacocks.

If all students like at least one of the birds, how many students are there?

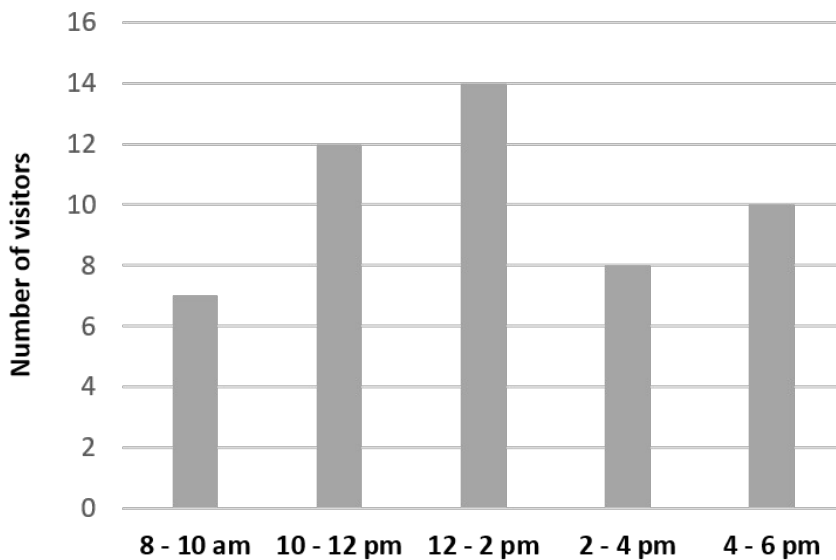
- A** 72 **B** 50 **C** 55 **D** 65 **E** 75

- 8.** Gary, Giovanna, and Giles buy mangoes for 80p each.
 Gary buys 5 more mangos than Giovanna, and Giovanna buys 12 more mangos than Giles.
 Together they spend £35.20 on buying mangos.

How many mangos did Giovanna buy?

A 8 **B** 17 **C** 12 **D** 15 **E** 25

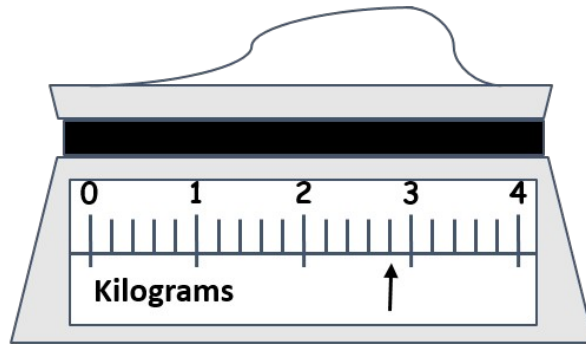
- 9.** Ruth works at a library and has been monitoring how many people enter the library throughout her shift. She has recorded the results in the graph below, using 2-hour intervals:



What was the median busiest period of Ruth's shift?

A 8 – 10 am **B** 10 – 12 pm **C** 12 – 2 pm **D** 2 – 4 pm **E** 4 – 6 pm

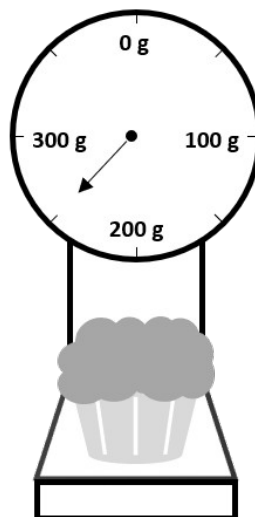
- 10.** Here is some salt on a weighing scale.



How many grams of salt must be removed to make 1.6 kg?

- A** 2,000 g **B** 1,200 g **C** 1,400 g **D** 1,500 g **E** 1,600 g

- 11.** The weight of a muffin is given to be 400g on its packaging. Karen weighs the muffin to see if the packaging is accurate.



By how much is the actual weight of the muffin different to that shown on the packaging?

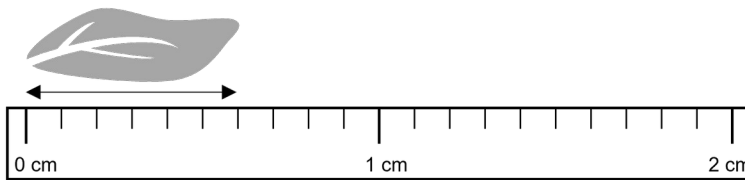
- A** 250 g **B** 150 g **C** 300 g **D** 275 g **E** 315 g

- 12.** A patch of land is fenced using wires.
The perimeter of the land is 1.85 km.

If fencing costs 30p per metre, how much does it cost to fence the entire patch of land?

A £520 **B** £555 **C** £508 **D** £568 **E** £582

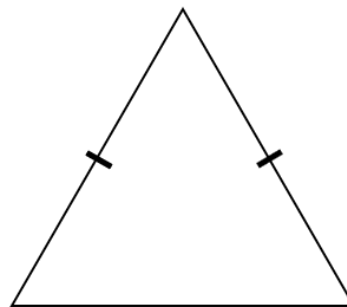
- 13.** Kofi is measuring the length of a small leaf.



If this species of leaf can grow to 1.5 cm long, what percentage of its maximum size is Kofi's sample?

A 30% **B** 45% **C** 25% **D** 40% **E** 60%

- 14.** An isosceles triangle has a perimeter of 60 cm.
The base of the triangle is 6 cm more than its equal sides.

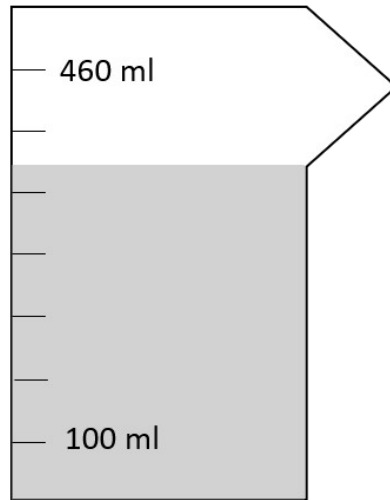


Perimeter = 60 cm

What is the length of its base?

A 24 cm **B** 20 cm **C** 28 cm **D** 18 cm **E** 25 cm

- 15.** Estimate the amount of liquid in the beaker below.



- A** 355 ml **B** 325 ml **C** 310 ml **D** 340 ml **E** 370 ml
- 16.** Sam wants to build a shed in his garden. He knows he wants the shed to have a volume of 75m^3 . If his base is 10m long and 3m wide, how tall must he make his shed?
- A** 7.5 m **B** 2.5 m **C** 25 m **D** 3.3 m **E** 2 m
- 17.** What is the perimeter of a square which has a area of 256 cm^2 ?
- A** 128 cm **B** 56 cm **C** 64 cm **D** 32 cm **E** 52 cm
- 18.** Kitchen tiles are 20 cm x 20 cm. How many tiles are required to cover a kitchen floor measuring 3.4 m x 1.8 m?
- A** 153 **B** 170 **C** 165 **D** 175 **E** 143

- 19.** Wallpaper is sold by the metre-length for sheets that are 2 metres wide. Alfred needs to buy 22 metres length of wallpaper to fully decorate his bedroom. If the wallpaper is sold at £3.50 per square metre, then how much does it cost Alfred in total to decorate his room?

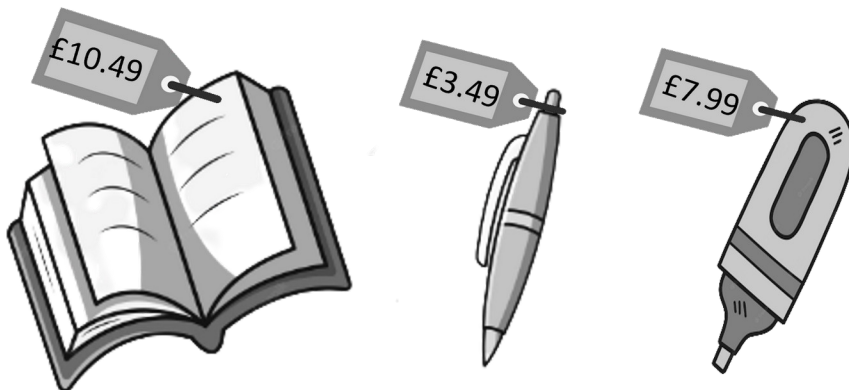
A £132 **B** £149 **C** £154 **D** £77 **E** £85

- 20.** A racket costs £7.95.
Joshua buys 2 such rackets and gives two £10 notes.

How much change does he receive?

A £4.80 **B** £4.25 **C** £5.25 **D** £3.40 **E** £4.10

- 21.** Nova bought a pen, a workbook and a highlighter.



If he gave a £20 and a £5 note, how much change did he receive?

A £3.03 **B** £3.12 **C** £4.32 **D** £3.10 **E** £3.26

- 22.** A shopkeeper buys 250 notebooks for £3 each.
He sells 150 notebooks for £4.50 each.
75 of his notebooks were in an unsellable condition.

He sells the remaining notebooks for £5.50 each.

How much money did the shopkeeper make after taking away the costs of buying the notebooks?

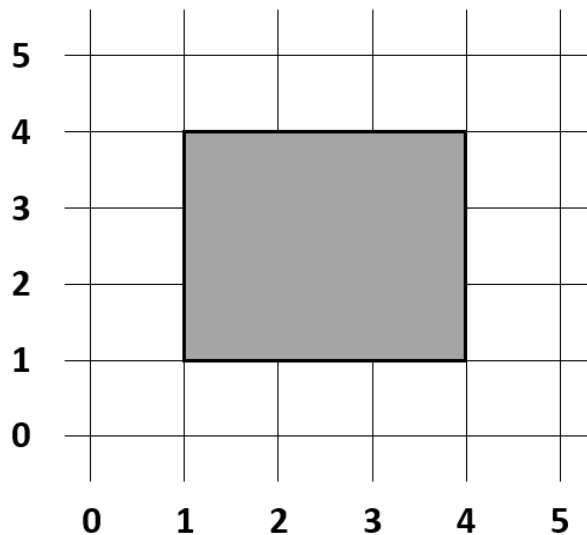
- A** £70.00 **B** £62.50 **C** £65.00 **D** £75.75 **E** £58.25

- 23.** Alex's piggy bank contains an equal number of 1p, 2p, and 5p coins. The total value of money in his piggy bank is £1.76.

How many coins are there in his piggy bank?

- A** 10 **B** 22 **C** 33 **D** 44 **E** 66

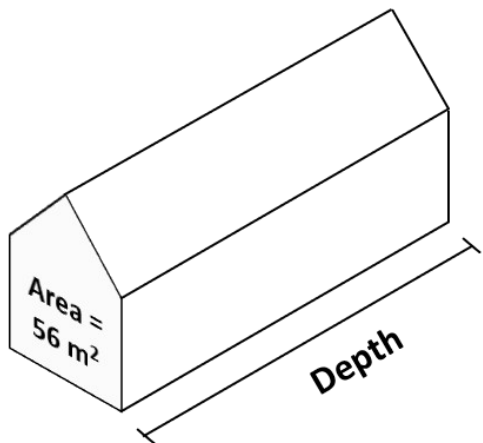
- 24.** A square is shown on the co-ordinate grid below.



What is the perimeter of this square?

- A** 10 units **B** 9 units **C** 3 units **D** 12 units **E** 6 units

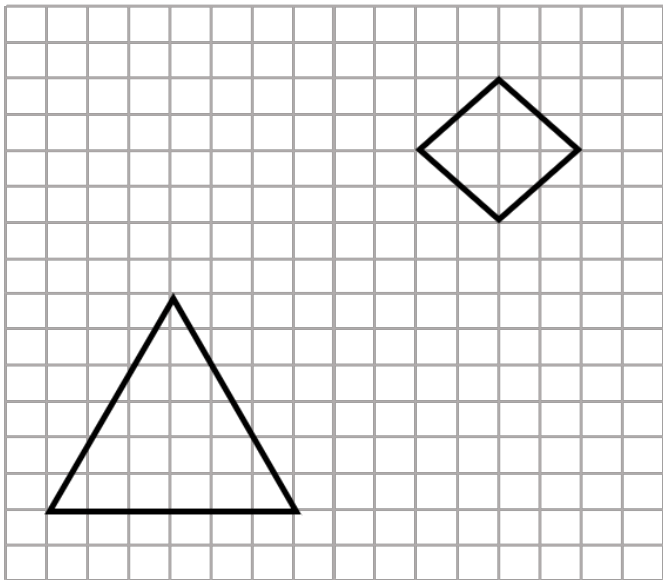
25. The volume of a barn is 448 m^3 and the area of it's front face is 56 m^2 .



What is the depth?

- A** 12 m **B** 18 m **C** 6 m **D** 8 m **E** 9 m

26. The area of the rhombus is 8 cm^2 .



What is the area of the triangle?

- A** 18 cm^2 **B** 12 cm^2 **C** 24 cm^2 **D** 36 cm^2 **E** 9 cm^2

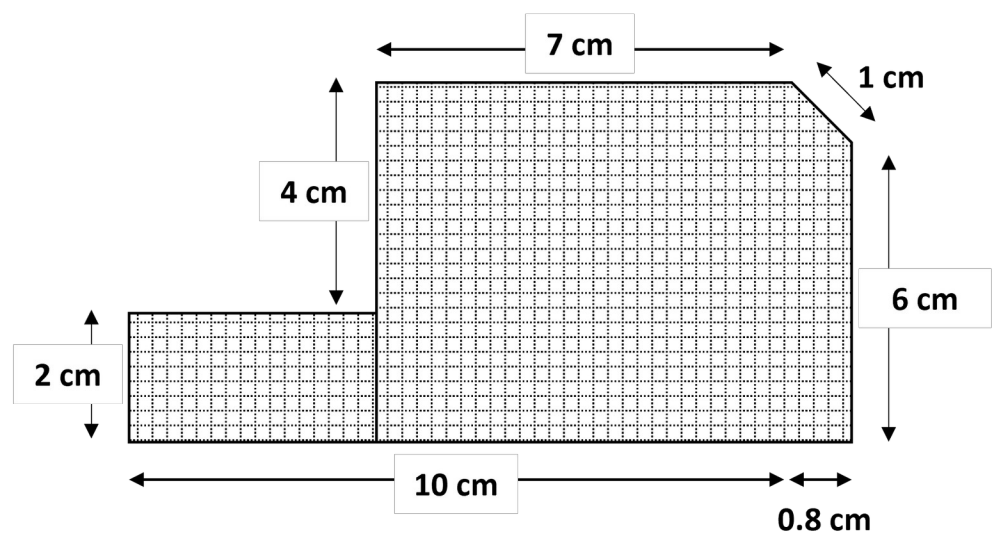
27. Square tiles of 20 cm are used to cover a rectangular room of size 1.2 m by 0.8 m.

How many square tiles are needed to cover the entire room?

- A 34 B 32 C 30 D 24 E 40

28. *Line Spacer*

Gary has drawn out a plan of his new front garden using a scale of 5:200. He wants to put up a fence all the way around it.



How many metres of fencing does Gary need to buy?

- A 13.15 m B 13.2 m C 33 m D 13.52 m E 1200 m

- 29.** The range and the average of the four numbers are 10 and 15 respectively.

What are the four numbers?

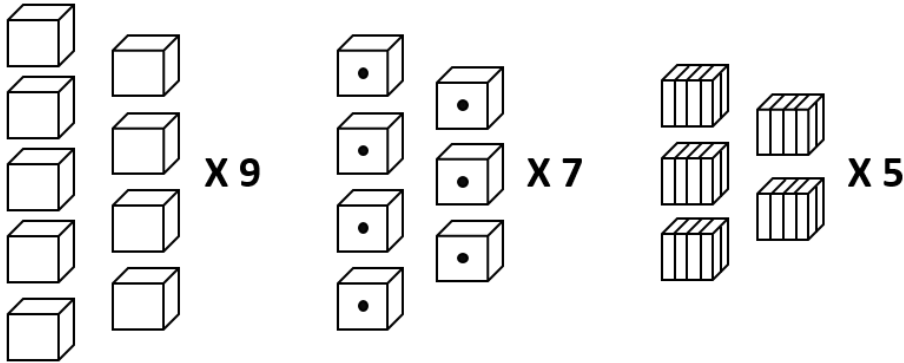
- A** 9, 13, 17 and 21
- B** 10, 13, 16 and 20
- C** 8, 10, 16 and 18
- D** 10, 12, 18 and 20
- E** 11, 15, 16 and 21

- 30.** Three numbers have a mean of 15 and a range of 9.

What are the three numbers?

- A** 10, 15 and 20
- B** 11, 15 and 19
- C** 10, 15 and 25
- D** 11, 14 and 20
- E** 11, 16 and 12

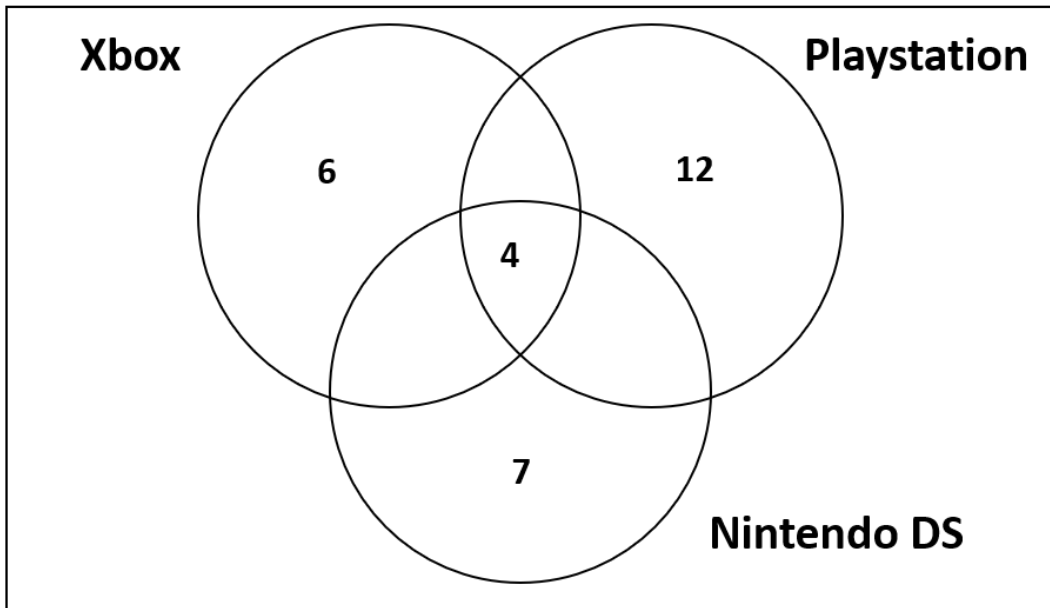
- 31.** 6 friends are picking cube blocks out of a hat for a game. There are 5 striped cubes, 7 dotted cubes, and 9 plain cubes. The first two friends pick out a striped cube each and the third friend picks out a plain cube.



What is the probability of the fourth friend picking a striped cube?

- A** $\frac{1}{9}$ **B** $\frac{1}{6}$ **C** $\frac{1}{3}$ **D** $\frac{2}{5}$ **E** $\frac{1}{18}$

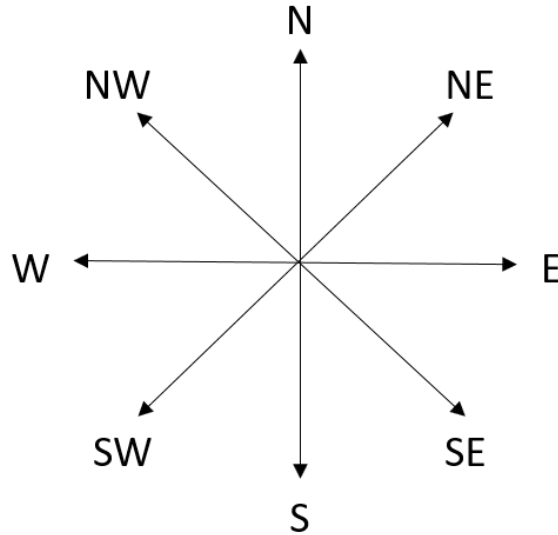
- 32.** 50 children at Japan's School of Technology were asked what gaming systems they have at home. Some of this information is displayed in the Venn Diagram below:



The remaining children have only two gaming systems and are split equally between the three groups.
How many children have Xbox's?

- 33.** 7 friends are playing a game of musical chairs where there are 5 remaining chairs arranged in a straight line.
- In how many possible combinations could the friends sit in the chairs?
- A 13 B 1765 C 7 D 1350 E 2520

- 34.** The eight compass directions are shown below.
Joseph is facing east.
He turns 75° in a clockwise direction.



Which of the following directions is closest to Joseph's direction?

- A** North-East
- B** East
- C** South-East
- D** North
- E** South

- 35.** A = Two-hundred and twenty
B = Three-hundred and forty-two

What is A + B in roman numerals?

- A CCLXII
- B DLXII
- C DCLXII
- D CDLXII
- E CCCCLXII

- 36.** Dillon, Nathan, Aran and Jessica entered a relay race as a team.
Dillon ran in 13.8 seconds, Nathan ran in 14.3 seconds, Aran ran in 13.2 seconds and Jessica ran in 12.1 seconds.

How long did the team take to complete the race?

- A 49.4 s B 48.8 s C 53.4 s D 51.7 s E 52.4 s

- 37.** After his bath, Jaideep pulls the plug and water drains at a rate of 100ml per second. If his bath had 35 litres of water to begin with, roughly how many minutes does it take to fully drain the bath?

- A 5 mins B 4 mins C 10 mins D 6 mins E 7 mins

- 38.** 3, 13, 17, 8, 21, 12, 9, 14, 11

What is the median of this set of numbers?

- A 11 B 12 C 17 D 9 E 14

39. 3 cm on a map represents 240 m in reality.

What should be the scale of the map in its simplest form?

A 1 : 4,000 **B** 1 : 6,500 **C** 1 : 8,000 **D** 1 : 9,200 **E** 1 : 7,200

40. Which ratio is equivalent to 20 : 25?

A 50 : 60 **B** 84 : 100 **C** 100 : 120 **D** 16 : 20 **E** 44 : 50

41. A train of length 20 m approaches a tunnel of length 340 m.

How many seconds will it take the train to pass completely through the tunnel at a speed of 30 metres per second?

A 10 **B** 11 **C** 12 **D** 13 **E** 14

42. The following quantities of milk, sugar, and flour are required to make one pancake:



Milk

50 ml



Sugar

6 g



Flour

100 g

How many pancakes can be made with 1 litre of milk, 120 grams of sugar, and 1.8 kg of flour?

A 22 **B** 20 **C** 18 **D** 34 **E** 15

- 43.** A radiator takes two builders 30 minutes to install.
How long would it take 8 builders to install 4 radiators?
- A 15 mins B 1 hour C 7.5 mins D 30 mins E 12 mins
- 44.** The flight from London to Dublin takes 1 hour 10 minutes, with the flight travelling at an average speed of 630 km/h. What is the total distance travelled by the plane?
- A 845 km B 735 km C 693 km D 713 km E 755 km
- 45.** The distance from the sun to the Earth is approximately 150 billion metres. If light travels at a speed of 300 million metres per second, roughly how long does it take light from the sun to reach the Earth?
- A 9 mins B 7 mins C 8 mins D 12 mins E 10 mins
- 46.** Leah lives 12 km due north of Sam, who lives 4 km due south of Jan. Roughly, how long would it take to travel to Jan's house from Leah's house if travelling at an average speed of 36 km/h?
- A 13 mins B 26 mins C 15 mins D 27 mins E 12 mins
- 47.** Northborough and Southborough are 8 km apart. How long would it take to cycle to Northborough from Southborough with an average cycle speed of 20 km/h?
- A 28 mins B 24 mins C 40 mins D 20 mins E 22 mins

- 48.** A snail is able to crawl 80 cm every 20 minutes. What is the speed of this in kilometres per hour?
- A** 0.0240 km/h
 - B** 0.0048 km/h
 - C** 0.4800 km/h
 - D** 0.0024 km/h
 - E** 0.0012 km/h