

Test 6

You have 30 minutes to complete this test.

You have 30 questions to complete within the given time.



Circle the letter above the correct answer.

- ① What is 45.6508 rounded to 3 decimal places?

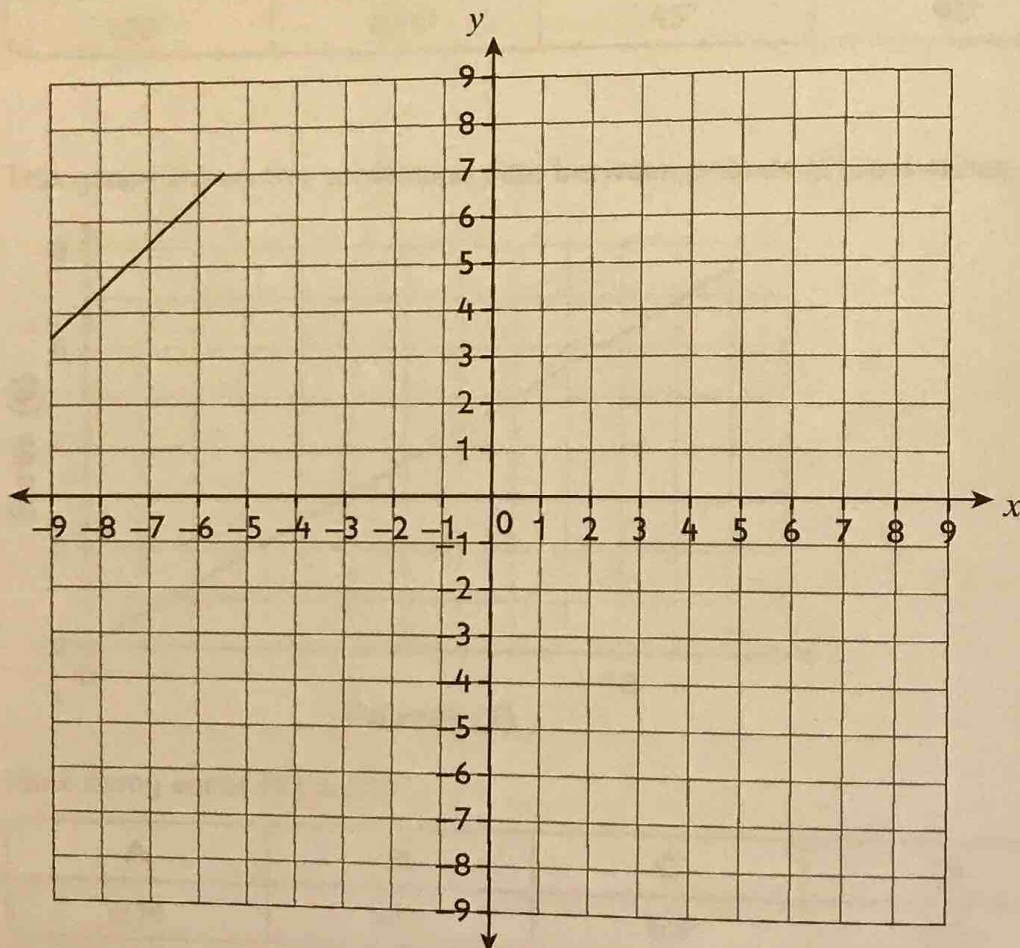
A	B	C	D	E
45.650	45.658	45.659	45.651	45.652

- ② Fawad buys 3 chocolate bars for y pence each.
He pays with a £10 note.

Which expression shows how much change he receives?

A	B	C	D	E
$-y$	$-3y$	$100 - 3y$	$1000 - 3y$	$1000 - y$

- ③ The endpoints of five lines are shown in table below.



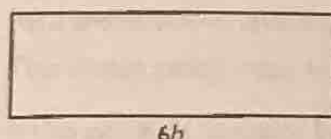
Which line is perpendicular to the line in the diagram?

A	B	C	D	E
(4, 9) and (3, 8)	(-6, 1) and (-1, 6)	(7, 3) and (7, 1)	(0, 0) and (5, -5)	(4, 8) and (-7, 6)

4 What is 1.65 as a fraction?

A	B	C	D	E
$\frac{165}{165}$	$\frac{32}{2}$	$\frac{7}{5}$	$\frac{33}{20}$	$\frac{13}{8}$

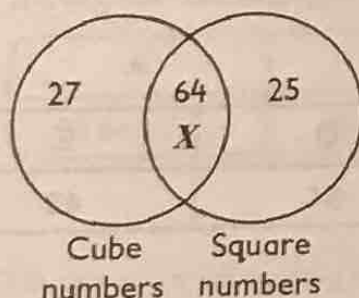
5 The width of this rectangle is 3 times smaller than its length.



Which expression shows the perimeter of the rectangle?

A	B	C	D	E
$3b$	$16b$	$14b$	$18b$	$24b$

6 This is a Venn diagram.



Which of the following could be the value of X?

A	B	C	D	E
36	1	81	9	8

7 The price of a hat is reduced by 15% in a sale.

The reduced price is £85

What was the price of the hat before it was reduced?

A	B	C	D	E
£85	£97	£70	£100	£110

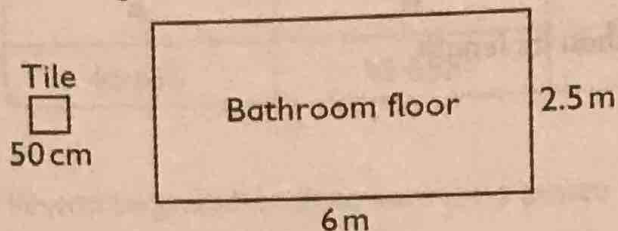
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- 8 8 pears cost the same as 4 oranges.
2 oranges cost the same as 3 lemons.

If the cost of a lemon is 32 pence, what is the cost of 4 pears?

A	B	C	D	E
64 pence	32 pence	100 pence	96 pence	24 pence

- 9 Ben plans to cover his bathroom floor with square marble tiles.
The diagrams below show the dimensions of the bathroom floor and 1 square marble tile.



How many marble tiles does Ben need to cover the whole area of the bathroom floor?

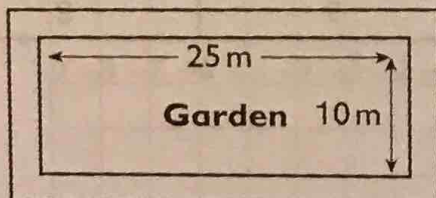
A	B	C	D	E
50 tiles	60 tiles	30 tiles	15 tiles	80 tiles

- 10 If $y = 4$, what is the mean of these expressions?

$3y + 5$ $4y + 6$ $4y - 1$

A	B	C	D	E
3	18	20	54	48

- 11 A path is laid around the outside of a garden.
The length of the garden is 25 m and its width is 10 m.
The path is 1 m wide.



What is the total area of the path and the garden?

A	B	C	D	E
324 m^2	250 m^2	286 m^2	270 m^2	348 m^2

- 12 Look at this table.

Shape	No. of sides	Sum of all angles
Triangle	3	180°
Square	4	

Which of the following should go in the empty cell?

A	B	C	D	E
540°	90°	180°	270°	360°

- 13 Rita owns some shares in a company.

The share price rises by 10% and the total value of Rita's shares increases by £10000

If the price of 1 share before the increase was £50, how many shares does Rita own?

A	B	C	D	E
1000	50	10000	2000	50000

- 14 For every 7 bananas in a crate, there are 4 oranges.

If there are 132 oranges, how many bananas are there in the crate?

A	B	C	D	E
33 bananas	85 bananas	363 bananas	924 bananas	231 bananas

- 15 Tia shares £4.80 equally between herself and two friends.

How much does each friend receive?

A	B	C	D	E
£1.00	£2.40	£1.60	£3.60	£0.80

- 16 The volume of a cube is 125 cm^3 .

What is the surface area of the cube?

A	B	C	D	E
125 cm^2	25 cm^2	150 cm^2	225 cm^2	5 cm^2

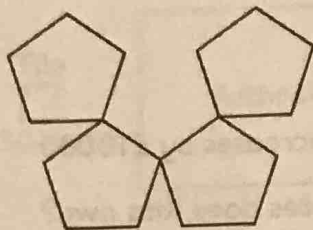
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- 17 Neil is facing north-west.
He turns 270° anticlockwise.

Which direction is Neil now facing?

A	B	C	D	E
south-east	east	north-east	south-west	west

- 18 The shape below is formed from identical regular pentagons.
Each pentagon has a side length of 7.5 cm.



What is the perimeter of the shape?

A	B	C	D	E
7.5 cm	37.5 cm	187.5 cm	75 cm	150 cm

- 19 $1.7 \times 0.04 =$

A	B	C	D	E
0.068	6.8	68.6	0.68	0.0068

- 20 Which of the following numbers is a multiple of 9 and 5 but not of 4?

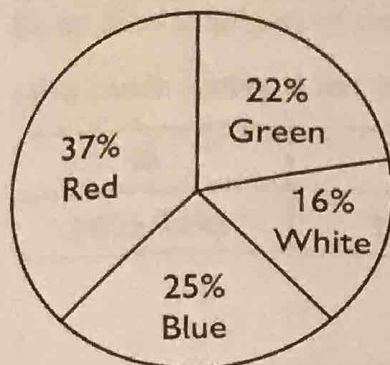
A	B	C	D	E
180	260	200	315	250

- 21 Which number should go in the box to complete the sum?

$$33 \times 110 = 3200 + \boxed{}$$

A	B	C	D	E
280	430	540	330	200

- 22 Lisa asked 100 students to choose their favourite colour. She recorded her results in the pie chart below.



25% of students chose blue as their favourite colour.

What is the size of the angle in the blue segment of the pie chart?

A	B	C	D	E
34°	45°	25°	90°	135°

- 23 The three angles in a triangle are X° , $5X^\circ$ and $4X^\circ$.

What is the value of $2X^\circ$?

A	B	C	D	E
20°	90°	180°	36°	18°

- 24 There are 13 children standing in a queue.

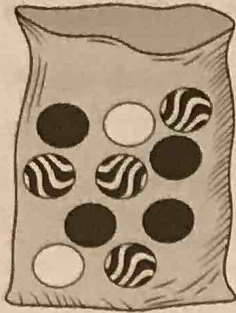
There are twice as many children standing in front of Maria than behind her.

In what position in the queue is Maria standing?

A	B	C	D	E
7th	3rd	5th	8th	9th

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- 25 The bag below contains black, white and striped balls.

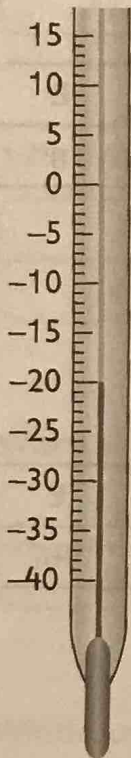


Jaks removes 1 ball at random.

What is the probability that this ball is striped?

A	B	C	D	E
$\frac{2}{10}$	$\frac{4}{5}$	$\frac{3}{8}$	$\frac{1}{5}$	$\frac{2}{5}$

- 26 This thermometer shows the temperature in Greenland on Thursday.
The temperature on Friday was 3 degrees greater than on the previous day.
The temperature on Saturday was 7 degrees less than on the previous day.



What was the temperature in Greenland on Saturday?

A	B	C	D	E
-24°	-16°	-25°	-17°	-12°

- 27 A cup can hold 450 ml of water when full.
A jug can hold 3.5 litres of water when full.
Ewan uses a full jug of water to fill $4\frac{1}{2}$ empty cups.
How much water is left in the jug?

A	B	C	D	E
2.025 litres	1.5 litres	0.8 litres	1.7 litres	1.475 litres

- 28 On a number line, which number would be halfway between -15 and 25?

A	B	C	D	E
0	5	10	15	20

- 29 When the grid below is filled, the numbers in each row and column add up to 33

	10	8
5	?	11
		14

Which number should replace the question mark?

A	B	C	D	E
13	18	17	14	5

- 30 What fraction of 7 weeks is a fortnight?

A	B	C	D	E
$\frac{1}{14}$	$\frac{7}{49}$	$\frac{2}{7}$	$\frac{14}{7}$	$\frac{49}{14}$