Dan bought two bottles of drink.

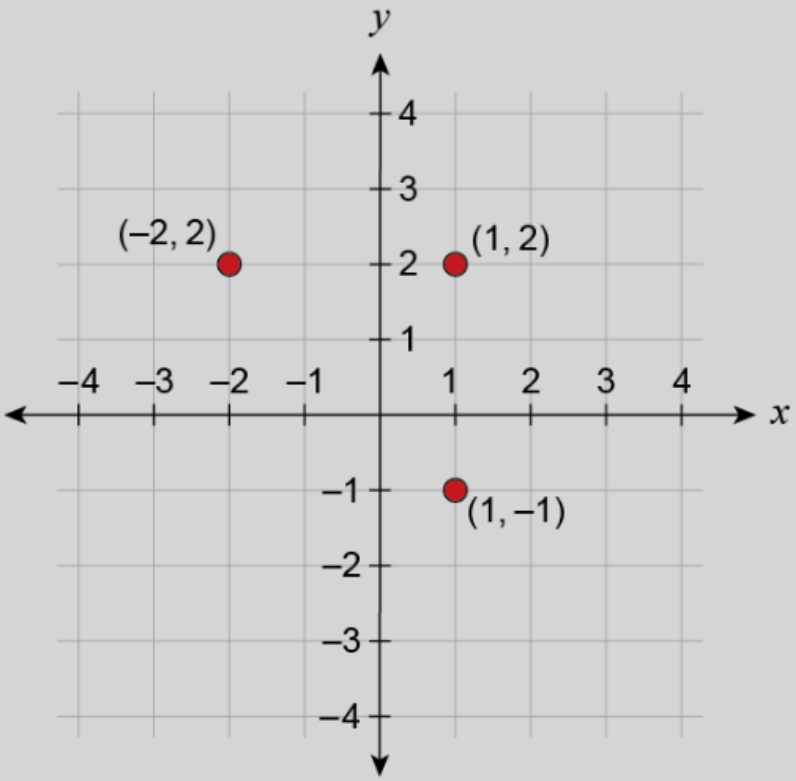
1.25 L 1.25 L

How many millilitres of drink did he buy?

- 2.5 mL
- 25 mL
- 250 mL
- 2500 mL

Maria is drawing a square on this Cartesian plane.

She places three corners at (1, 2), (−2, 2) and (1, −1).



Where should Maria put the fourth corner?

- (−2, −1)
- (−2, −2)
- (−1, −2)
- (−1, −1)

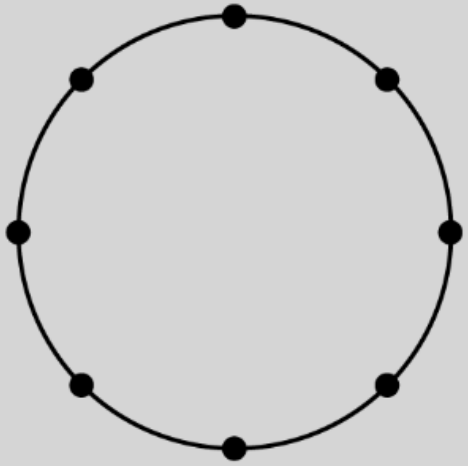
These numbers form an increasing pattern.

2, 3, 6, 11, 18, 27, ?

What number must ? be?

- 39
- 38
- 37
- 36

Lucy wants to draw a polygon in this circle.



She chooses the vertices from 8 equally spaced points marked on the circle.

Lucy then draws lines connecting points to form the sides of her polygon.

Which polygon can she **not** make using the points she has chosen?

- square
- trapezium
- regular octagon
- regular hexagon

What is the value of $\frac{7}{100}$ + 5.932 ?

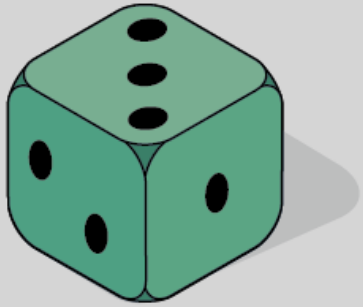
- 6.632
- 6.002
- 5.939
- 5.902

Joe's son is arriving at the airport at 19:45. Joe leaves home 1 hour and 15 minutes before arrival time.

At what time did Joe leave home?

- 6.30 pm
- 8.30 pm
- 9.00 pm
- 11.00 pm

This dice has six sides. Two of the sides show 1 dot. Two of the sides show 2 dots. The remaining two sides show 3 dots.



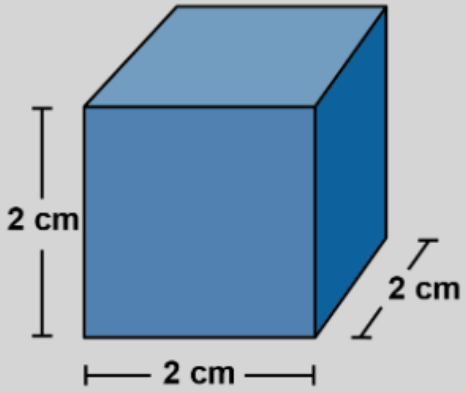
What is the probability of landing with 1 dot on the top when rolling the dice?

- 1
- $\frac{1}{2}$
- $\frac{1}{3}$
- $\frac{1}{6}$

Place these four numbers in increasing order.

$\frac{1}{2}$ | 25% | $\frac{3}{4}$ | 0.6

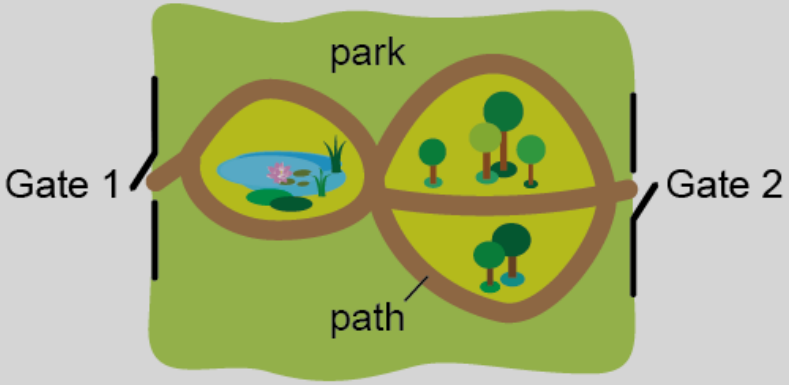
smallest [ ] [ ] [ ] [ ] largest



What is the volume of this solid?

- 4 cm^3
- 6 cm^3
- 8 cm^3
- 12 cm^3

This map shows the paths in a park.



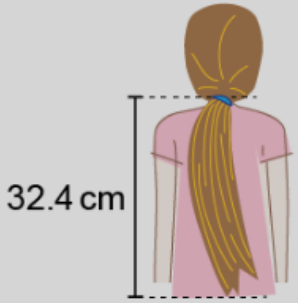
How many different ways are there to walk along the paths from Gate 1 to Gate 2 without heading back towards Gate 1?

- 6
- 5
- 4
- 3

Lisa and Alana are tying their hair.

Lisa braids her hair. Her braid is 247 millimetres (mm) long.

Alana ties her hair in a ponytail. Her ponytail is 32.4 centimetres (cm) long.



Which of these is the correct comparison between the two girls' hairstyles using the given measurements?

	Longer hair when tied	Difference in length
(A)	Lisa	77 mm
(B)	Alana	7.7 cm
(C)	Lisa	21.5 cm
(D)	Alana	123 mm

There are 22 marbles in a bag. The marbles come in 5 different colours.

There are 2 blue and 8 yellow marbles. The number of green marbles is half the number of yellow marbles, and the number of white marbles is double the number of blue marbles. All the rest are black marbles.

Harry draws out a marble at random.

Which marbles have the same chance of being drawn out? Tick **all** colours that apply.

- [ ] green
- [ ] yellow
- [ ] blue
- [ ] white
- [ ] black

$7 \times 11 \times 13 = 1\,001$

What does $7 \times 121 \times 130$ equal?

- 10 010
- 11 011
- 101 110
- 110 110

Anish drew this shape.

He rotated it anticlockwise by a quarter of a turn.

Which of these shows the shape after this rotation?

$6 + 12 \div 3 = \boxed{?} - 1 \times 2$

What number must ? be?

- 12
- 8
- 6
- 4

Jenny is making a table of square numbers and triangular numbers. She uses a dot diagram to represent each number.

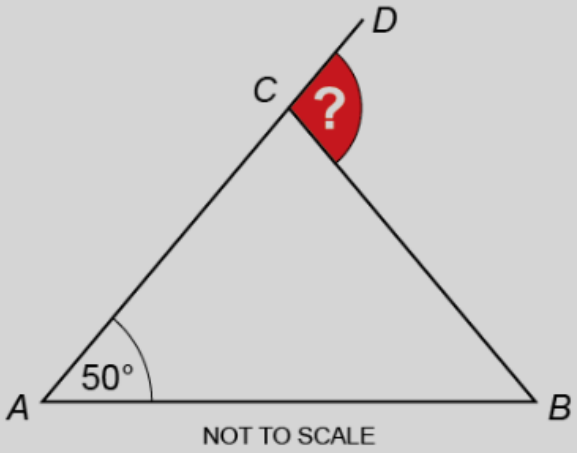
Square numbers	 1	 4	 9
Triangular numbers	 1	 3	 6

Which of the following numbers is both a square number and a triangular number?

- 16
- 28
- 36
- 49

ABC is an isosceles triangle where *AC* = *BC*.

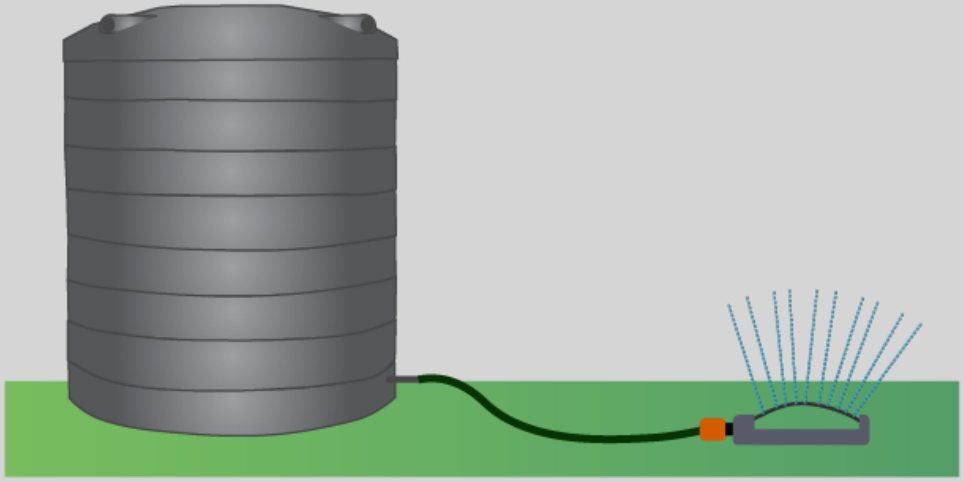
AC is extended to *D*.



What is the size of ∠*BCD*?

- 80°
- 100°
- 115°
- 130°

Mal had 2000 litres of water in his tank. He attached a sprinkler to the tank and turned on the tap. The sprinkler sprayed 1.5 litres of water every minute.

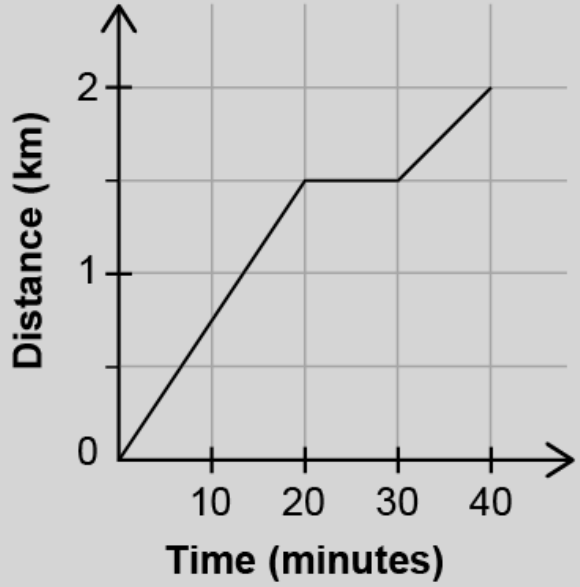


Mal turned the tap off after 8 hours.

How much water was left in the tank?

- 720 L
- 800 L
- 1200 L
- 1280 L

This graph represents Jane's walk to school.



Which table of values matches her graph?

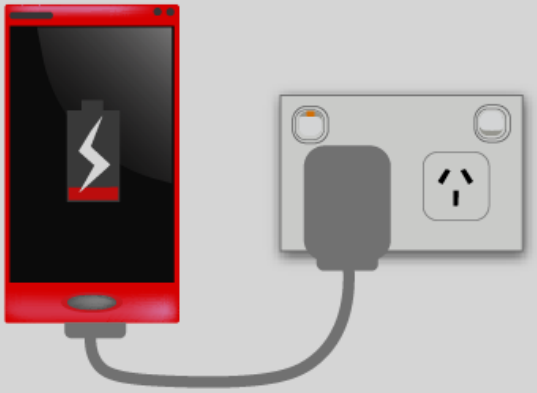
Time	10	20	30	40
Distance	0.6	1.5	1.75	2

Time	10	20	30	40
Distance	0.75	1.5	1.75	2

Time	10	20	30	40
Distance	0.6	1.5	1.5	2

Time	10	20	30	40
Distance	0.75	1.5	1.5	2

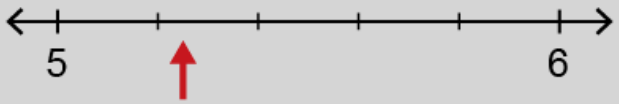
The battery in Angela's mobile phone is completely flat. She plugs it into the charger at 3 pm. The amount of charge stored in the battery increases by 8% of its full charge every 10 minutes.



At what time will the battery hold 84% of its full charge?

- 4.05 pm
- 4.20 pm
- 4.25 pm
- 4.45 pm

This number line has equal intervals marked.



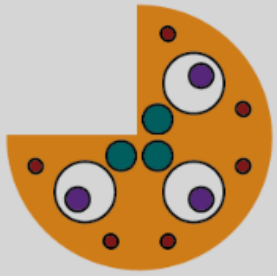
Which of these numbers could be indicated by the arrow?

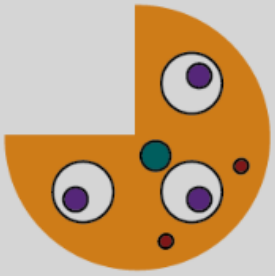
- 5.15
- 5.2
- 5.25
- 5.3

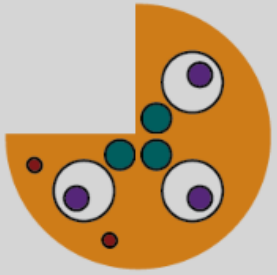
This picture shows one quarter of a design.

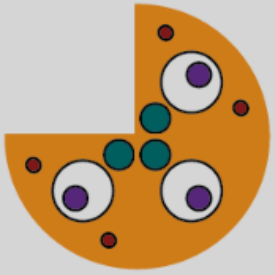
The design has only two lines of symmetry.

Which of these could be the other three quarters of the design?

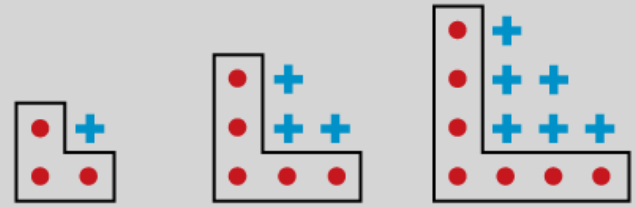








Adam is making a pattern of shapes.



What should be the total number of spots and crosses in shape 6?

- 34
- 32
- 28
- 26

Phil has 99 stamps and 8 stamp books. He puts an equal number of stamps in each book.

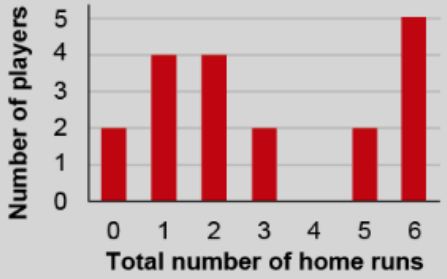
Which of these **cannot** be the number of stamps left over?

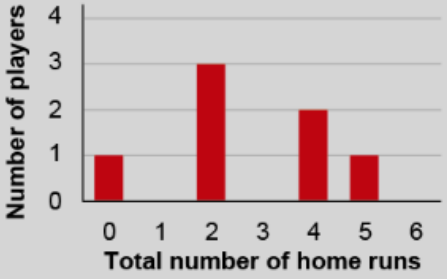
- 11
- 25
- 43
- 51

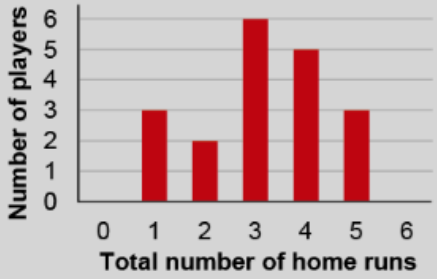
This table shows the number of home runs scored by some players in a softball team.

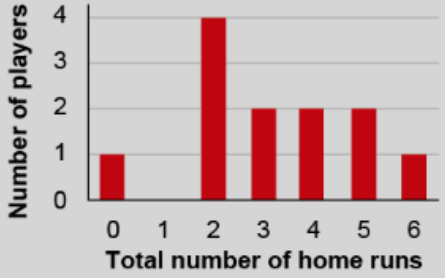
	Game					
Player	**1**	**2**	**3**	**4**	**5**	**Total**
Milly	0	1	0	0	1	**2**
Pam	1	0	0	2	1	**4**
Jane	1	1	2	0	0	**4**
Ruby	0	0	1	1	0	**2**
Alison	0	0	0	0	0	**0**
Jess	0	0	1	1	0	**2**
Liz	1	0	2	1	1	**5**
Total	**3**	**2**	**6**	**5**	**3**	**19**

Which graph shows the number of players who scored a given number of home runs?

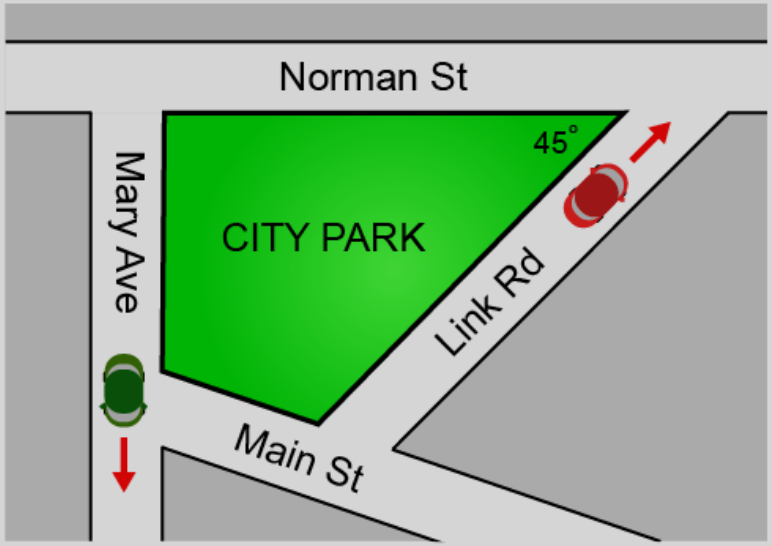








The green car is travelling west along Mary Ave.

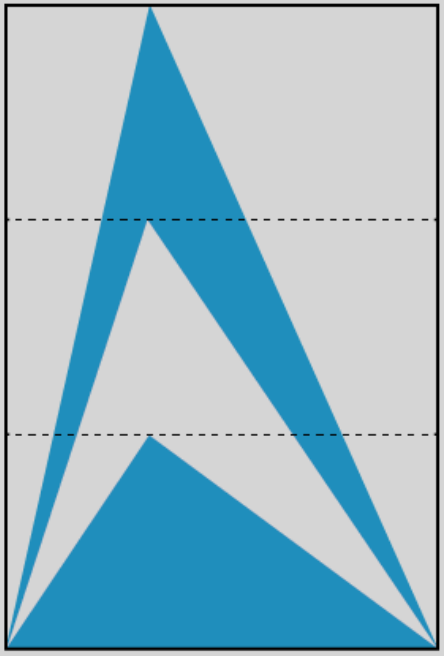


In which direction is the red car travelling along Link Rd?

- south-east
- north-east
- south-west
- north-west

Carly had a rectangular piece of cardboard, 5 cm wide, with an area of 60 cm^2 on which to design a flyer for a climbing group.

Carly folded the cardboard into thirds. Then she drew three overlapping triangles with a shared base.

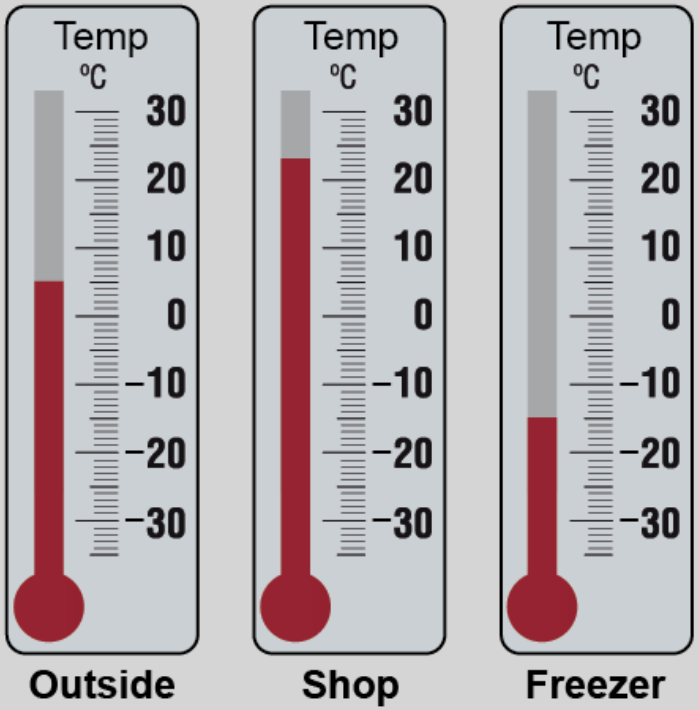


What is the total area of the blue shaded regions?

- 40 cm^2
- 30 cm^2
- 20 cm^2
- 10 cm^2

Jason walked to his shop in the morning. He went into the freezer and brought out goods to restock the shelves.

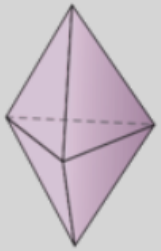
These thermometers show the temperatures Jason experienced that morning.

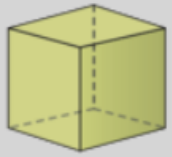


What temperature range did Jason experience that morning?

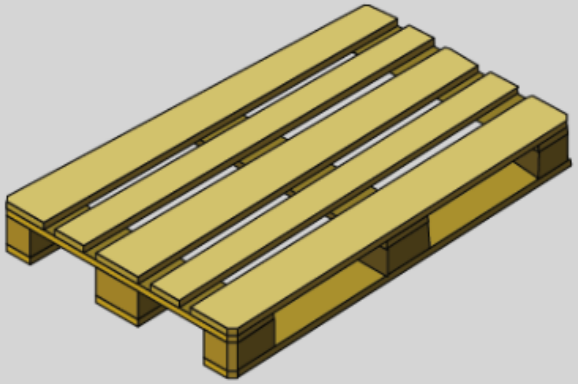
- 40 °C
- 38 °C
- 28 °C
- 20 °C

Which of these solids does **not** have the same number of faces meeting at every vertex?





This is a pallet. It has a mass of 25 kilograms (kg).



Fiona places 150 tiles on the pallet. A stack of 4 tiles has a mass of 5 kg.

What is the total mass of the pallet and the tiles?

- 775 kg
- 212.5 kg
- 187.5 kg
- 145 kg

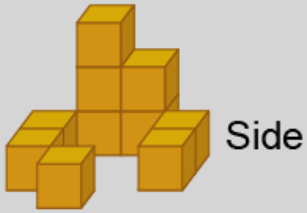
Half an hour before a show started, a hall was half full.

By the time the show started, another 300 people had arrived and the hall was now nine-tenths full.

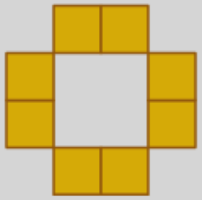
What is the capacity of the hall?

[ ] people

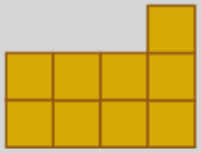
Ben stacked his cubes to make this pattern.



He wants to add more cubes so his pattern matches these views.


Top view


Front view


Side view

What is the minimum number of cubes Ben needs to add?

- 2
- 3
- 4
- 5

The fractions in this pattern increase by the same amount.

$\frac{1}{4}, \frac{1}{3}, \frac{5}{?}, \frac{1}{2}$

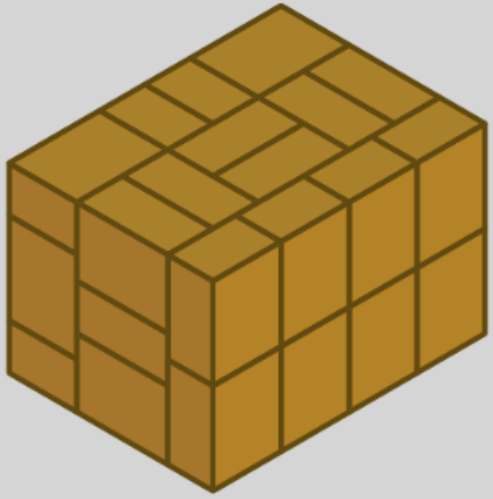
What number must ? be?

- 11
- 12
- 13
- 14

Rani has some identical wooden blocks.

The volume of each block is 24 cm^3.

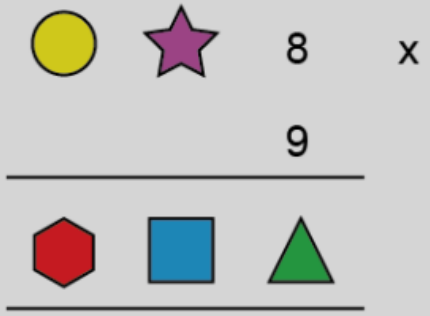
She uses the blocks to make this rectangular prism.



What is the volume of the rectangular prism?

cm^3

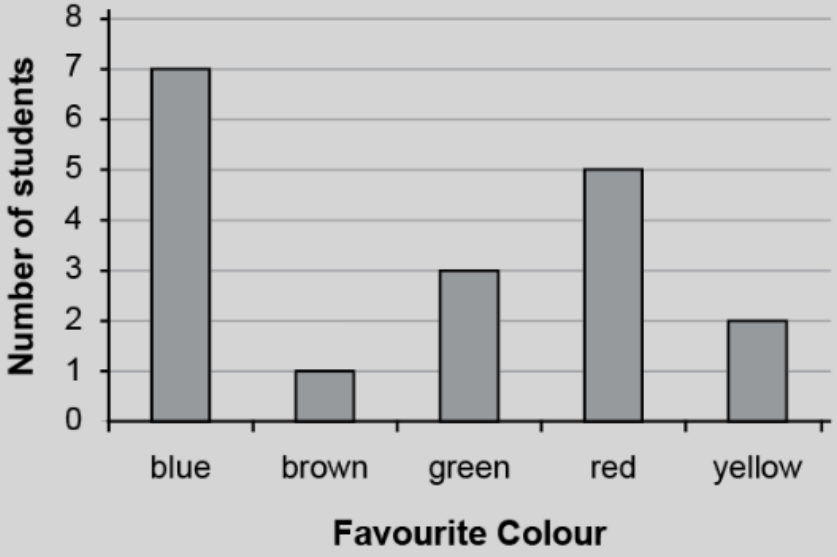
Mrs Ho gave her class the following problem involving multiplication of a three-digit number by a one-digit number.



Each symbol represents a different digit.

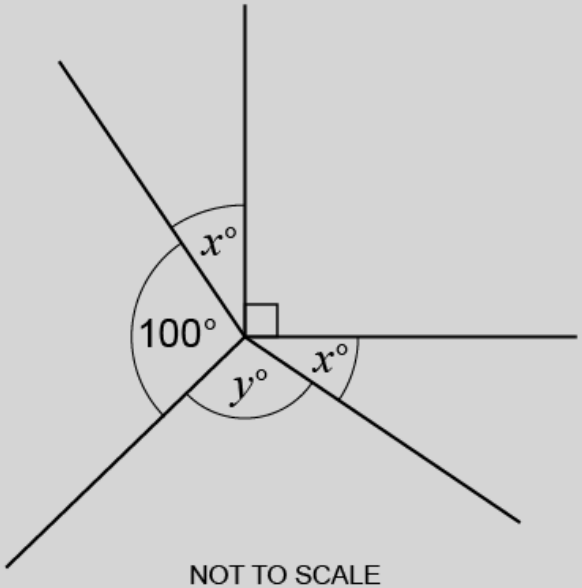
What number is represented by  ?

Students in a class were asked to choose their favourite colour from five options. This graph shows the results.



The teacher used a sector graph to show the same results.
Which angle was used to draw the sector representing green?

- 3°
- 30°
- 54°
- 60°



NOT TO SCALE

The value of y is three times the value of x.

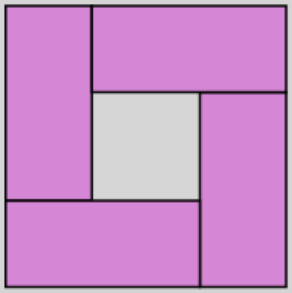
What is the value of y?

Charlie eats 20% of a cake. David then eats 10% of the rest of the cake.

What percentage of the original cake is left?

- 28%
- 30%
- 70%
- 72%

Lin arranged four identical rectangles to form this shape.



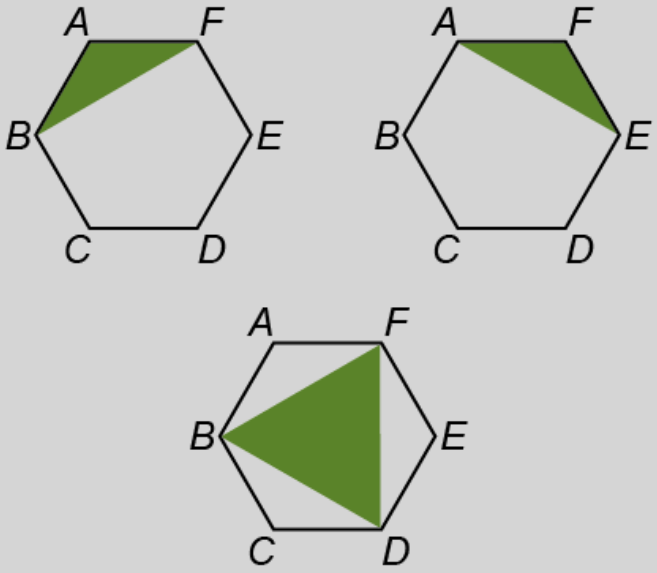
The outer edges and the inner edges of the shape form squares.

The larger square has an area of 121 cm² and the smaller square has an area of 25 cm².

What is the perimeter of each rectangle?

cm

The diagram shows three different triangles, *ABF*, *AEF* and *BDF*, that can be drawn by joining the corners of a hexagon.



How many different triangles can be drawn in this hexagon?

- 8
- 12
- 14
- 20