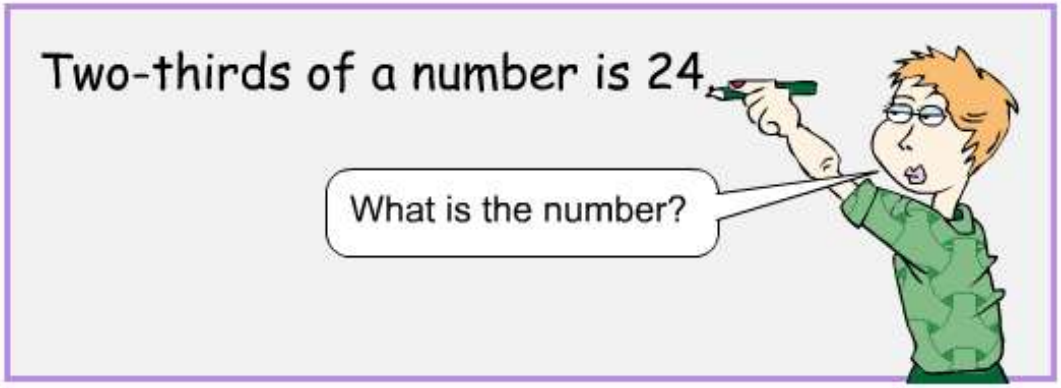


- 16
- 27
- 30
- 36

Huw is making this pattern of squares using matches.

Figure 1 Figure 2 Figure 3 Figure 4

He drew up a table to show the number of squares and the number of matches used for each figure.

Figure	1	2	3	4
Number of squares	1	3	5	7
Number of matches	4	10	16	22

Which figure would have 27 squares?

- ◯ Figure 13
- ◯ Figure 14
- ◯ Figure 15
- ◯ Figure 16

Huw is making this pattern of squares using matches.

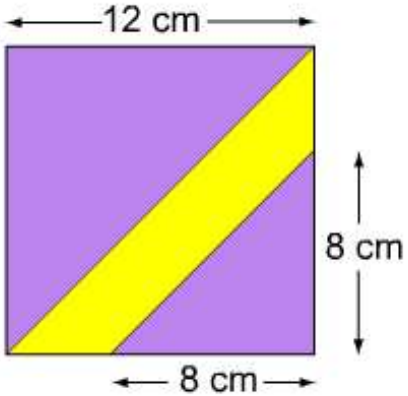
Figure 1 Figure 2 Figure 3 Figure 4

He drew up a table to show the number of squares and the number of matches used for each figure.

Figure	1	2	3	4
Number of squares	1	3	5	7
Number of matches	4	10	16	22

How many matches will Huw need for the squares in Figure 10?

- 58
- 76
- 84
- 86

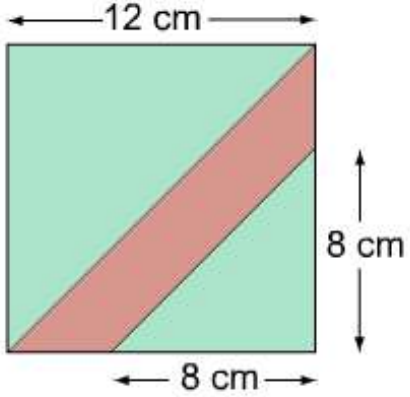


The diagram shows a square with sides 12 cm.

A stripe is painted on the square.

What is the area of the small triangle?

- 16 cm^2
- 24 cm^2
- 32 cm^2
- 64 cm^2



The diagram shows a square with sides 12 cm.

A stripe is painted on the square.

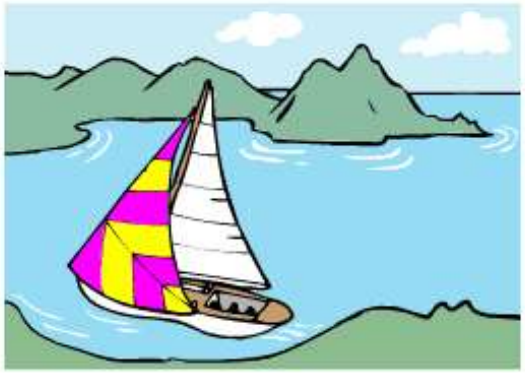
What is the area of the stripe?

24 cm^2	36 cm^2	40 cm^2	72 cm^2

Here is a number sentence:

$22 - (4 + 8) - (6 \alpha 2) = 7$

What operation replaces the α to make the number sentence true?



At Harry's Inlet, the time between high tide and low tide (and between low tide and high tide) is 6 h 33 min.

If there was a low tide at 7:40 pm, when is the next low tide?

- 2:03 am
- 2:13 am
- 8:36 am
- 8:46 am

Rob, Lennie and Eli are counting down numbers.

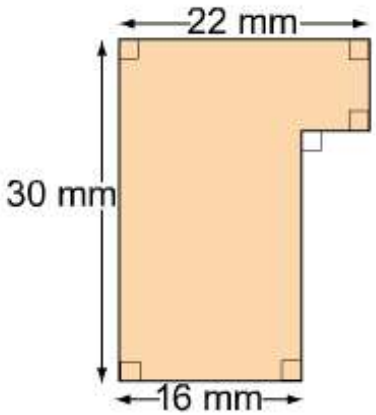
Eli starts at 60 and counts down by 5s. His numbers are 60, 55, 50, 45, 40 and so on.

Rob is to start at 150 and count down by 10s.

Lennie is to start at 120 and count down by 4s.

If Rob and Lennie start at the same time and call out their numbers at the same time, what number will they both call out together?

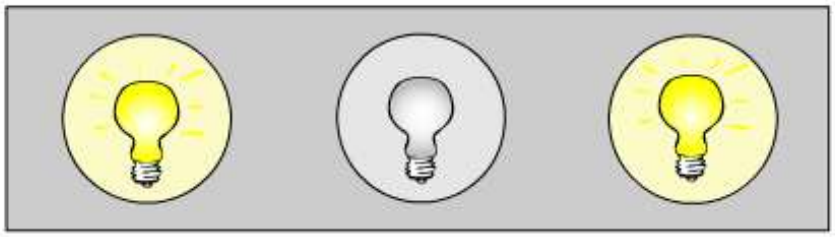
- 100
- 90
- 80
- 60



What is the perimeter of the shape?

- ⬭ 68 mm
- ⬭ 104 mm
- ⬭ 112 mm
- ⬭ 136 mm

A machine can give a signal by using three lights that are in a row.



Each light can be either on or off. Every different pattern of lights gives a different signal.

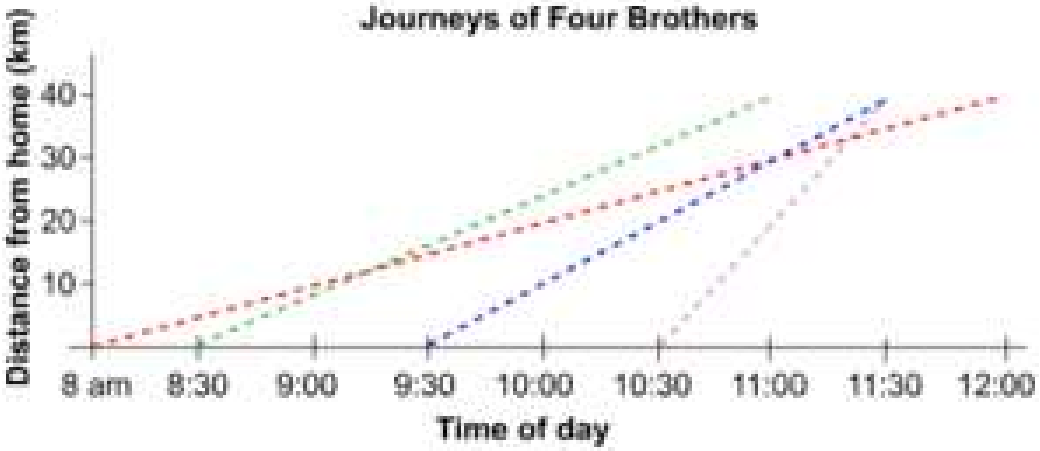
How many different signals are possible?

- 3
- 6
- 8
- 9

Bob, Bill, Ben and Brae are four brothers who all live together.

Each of the boys left their home at different times to travel to the same location, 40 kilometres away.

The graph shows the distance each brother was from their home at different times over their journeys.

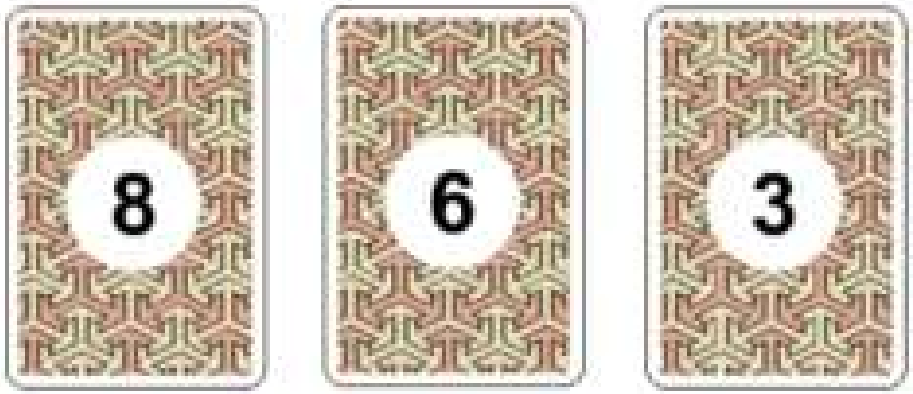


The table shows the average speed of each boy's journey.

Name of brother	*Average speed*
Bob	40 km/h
Bill	10 km/h
Ben	20 km/h
Brae	16 km/h

Using the graph and the table, which two brothers arrived at the location at the same time?

- Bill and Ben
- Bob and Bill
- Ben and Brae
- Bob and Ben



The numbers 8, 6 and 3 are written on three cards, one number on each card.

Belinda multiplies the three numbers together.

Ashleigh adds 2 to one of the numbers and then multiplies the three numbers together.

Which is the correct statement?

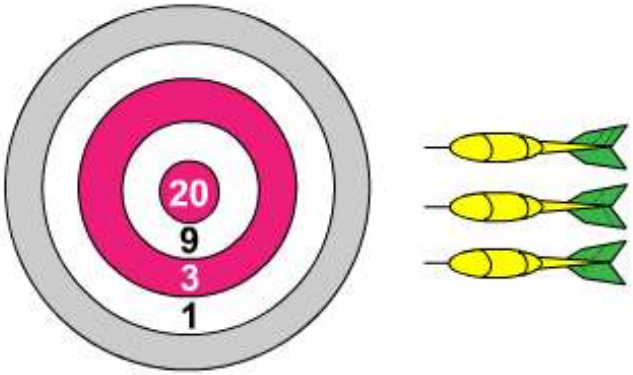
- Ashleigh's answer is 2 more than Belinda's.
- Belinda's answer is more than Ashleigh's.
- Ashleigh's answer is 144.
- Ashleigh's answer is a multiple of 6.

A knockout tennis match is where two players play tennis and the winner stays in the competition but the loser is eliminated or 'knocked out'.

Thirty-two tennis players enter a knockout competition.

How many matches are played before the overall winner is known?

- 16
- 24
- 31
- 32

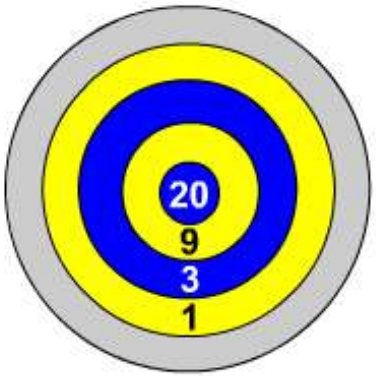


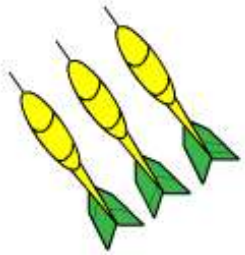
Three darts are thrown at the dartboard.

The scores are added together, with a miss counted as zero.

Which of these totals is **impossible** to score?

- 10
- 16
- 18
- 19





Darts are thrown at the dartboard. The scores are added together.

What is the smallest number of darts that could be thrown to score 37?

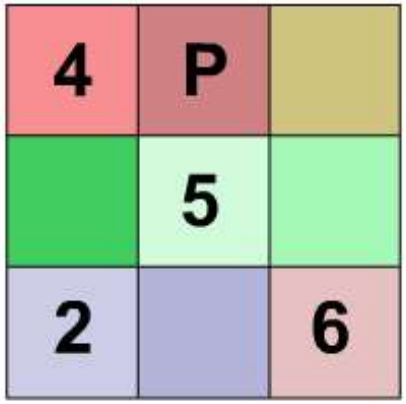
- less than 5
- 5
- 6
- more than 6

Huw is purchasing motor oil and needs 20 litres.

How much will he save by buying the 5-L containers compared to the 2.5-L containers?

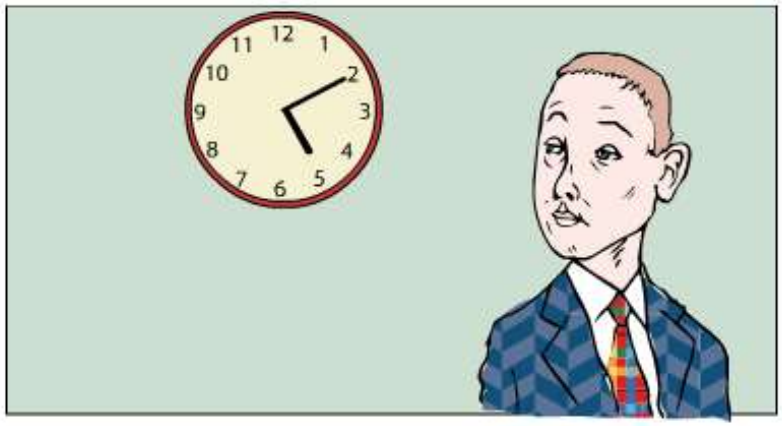
- $2.40
- $4.80
- $7.20
- $9.00

The diagram shows a partly completed magic square. All three rows, all three columns and both diagonals add to the same number.



What is the value of P?

- 9
- 7
- 3
- 1



Mitch finishes work at 5:10 pm.

It is $8\frac{1}{2}$ hours since he started work.

What time did Mitch commence work?

- 8:40 am
- 8:50 am
- 9:40 am
- 9:50 am

5	J	L	H	A	P	I
4	S	B	Z	O	D	.
3	N	E	X	U	Y	?
2	F	R	G	K	C	SPACE
1	W	M	T	Q	V	–
	1	2	3	4	5	6

The grid is used to place words into code. The letter B is (2, 4).

What phrase is represented by the code

(4, 5) (2, 2) (2, 3) (6, 2) (1, 1) (2, 3) (6, 2) (3, 1) (3, 5) (2, 3) (2, 2) (2, 3) (6, 3)

- ARE YOU HERE?
- ARE WE THERE?
- DO YOU THINK?
- DO SIT WHERE?

Two cakes and a coffee cost $9.00, while the cost of a cake and a coffee is $5.50.

What is the cost of a coffee?

- ⬭ $2.00
- ⬭ $2.50
- ⬭ $3.00
- ⬭ $3.20