

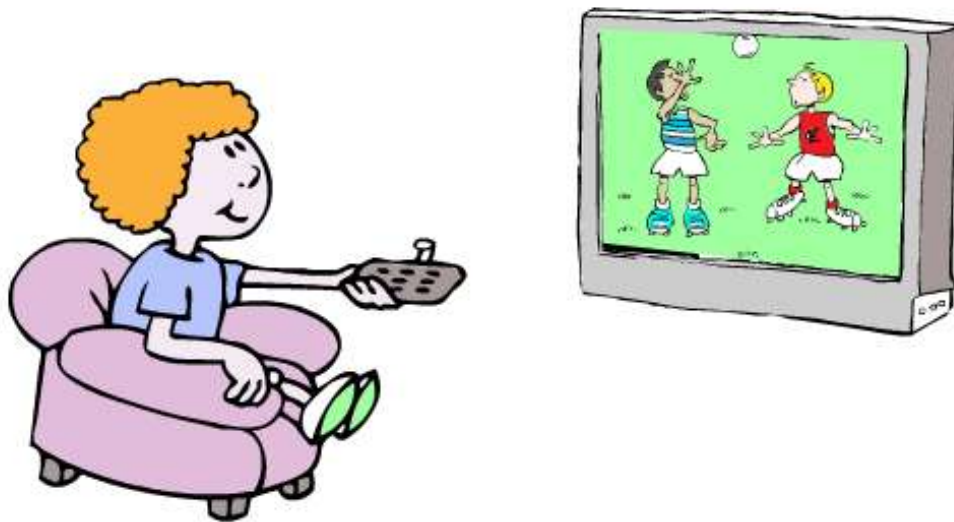
What is the value of  ?

☐ 8

☐ 12

☐ 16

☐ 24



A football match commenced in London at 5 pm.

Armena is at home in Perth and is watching the game live on her television.

If Perth time is 9 hours ahead of London time, what time is it in Perth?

☐ 2 am

☐ 4 am

☐ 6 am

☐ 11 pm

I am a 3D solid. I have two triangular faces and three rectangular faces.

What am I?

☐ triangular prism

☐ triangular pyramid

☐ rectangular prism

☐ rectangular pyramid

Herman uses a glass jar as a piggy bank for his loose change.

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When it contains 100 two-dollar coins it has a mass of 1 kg.

When the jar is empty, it has a mass of 300 g.

What is the best estimate for the mass of one two-dollar coin?

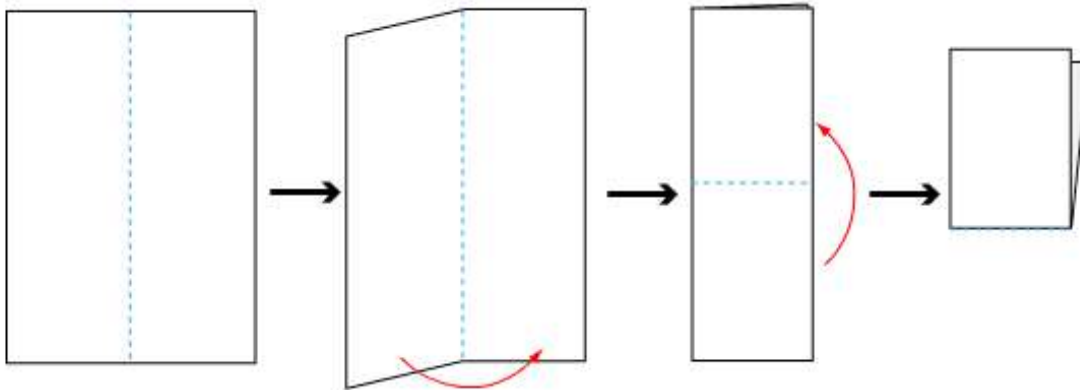
☐ 7 g

☐ 8 g

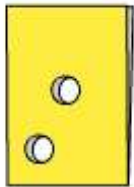
☐ 10 g

☐ 13 g

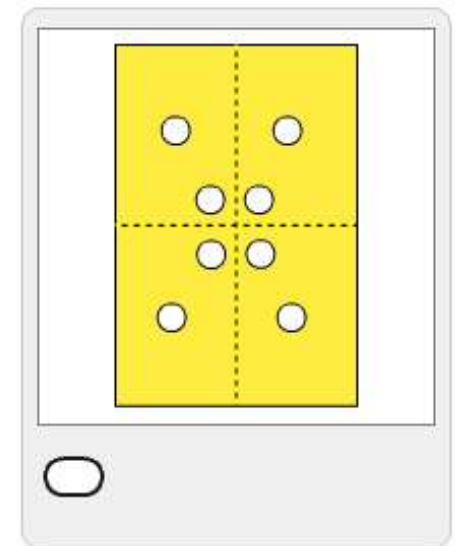
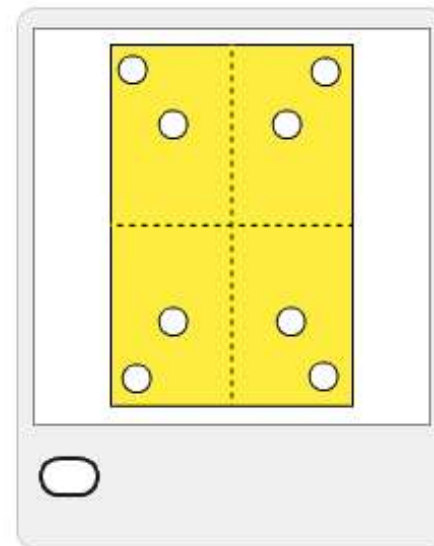
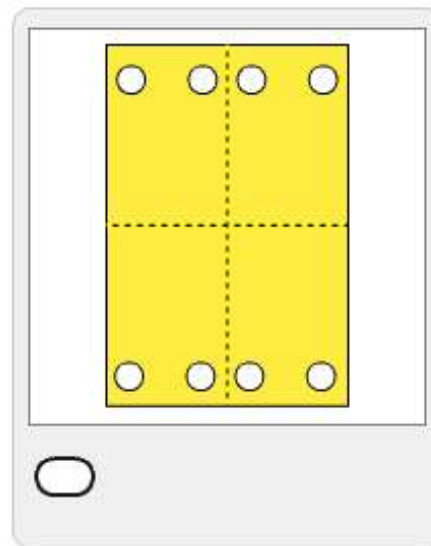
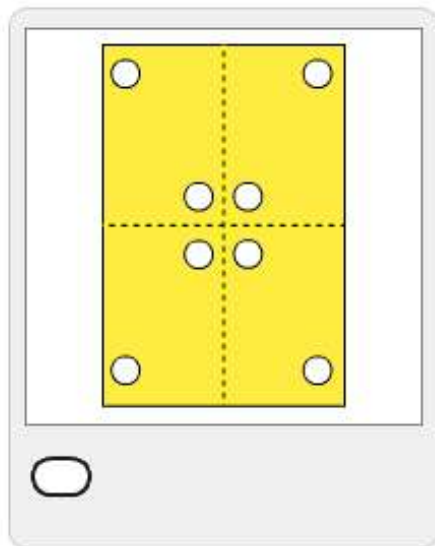
Jenni folded a sheet of paper in half and then folded it in half again.



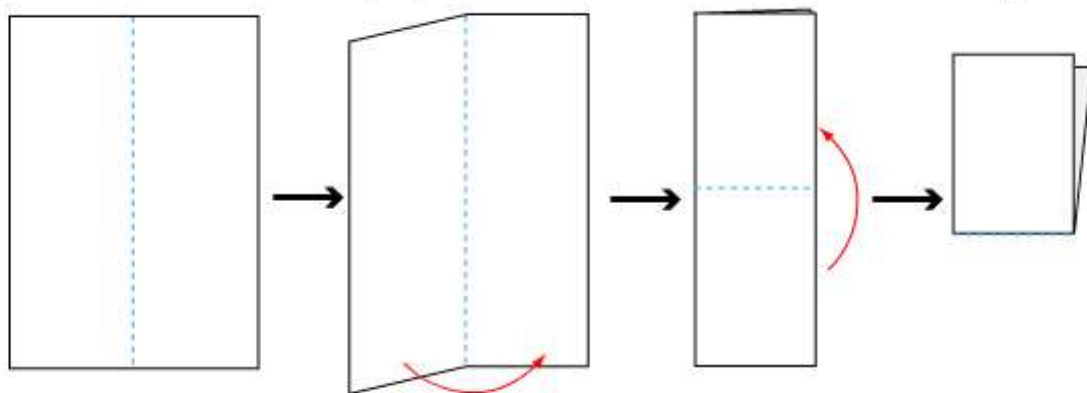
Two holes were punched out of the folded paper as shown in the diagram.



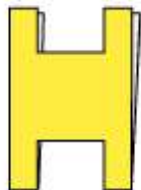
What did her paper look like when she unfolded it?



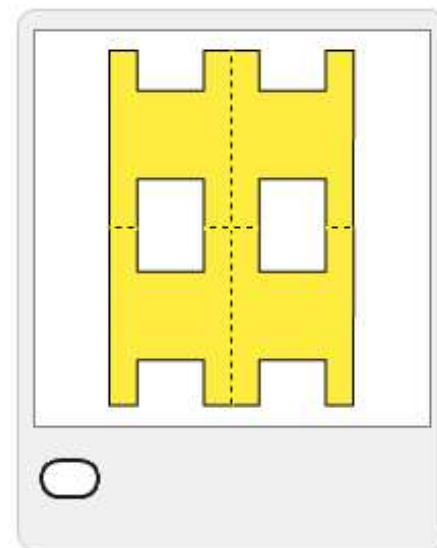
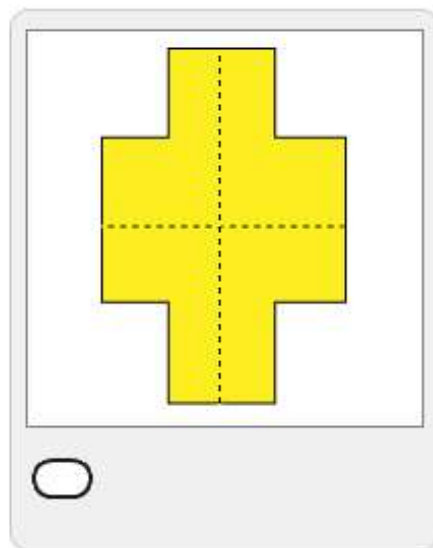
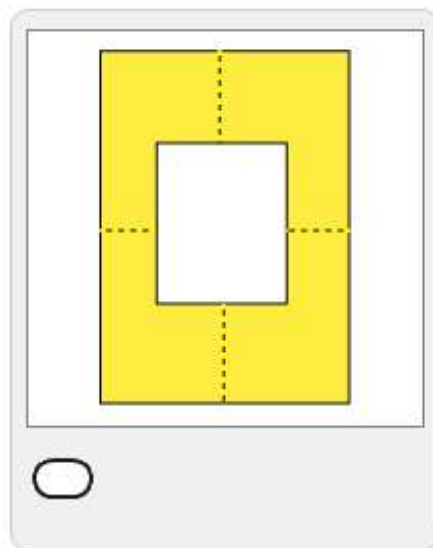
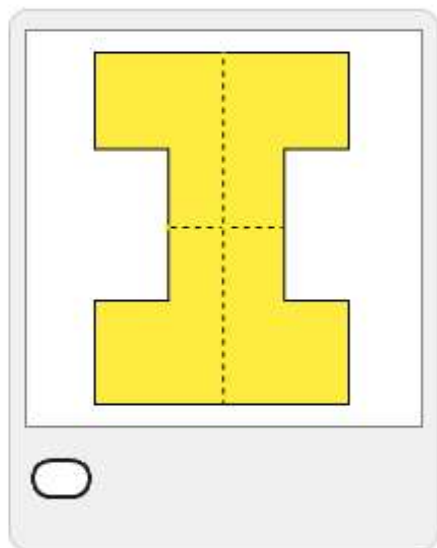
Dinh folded a sheet of paper in half and then folded it in half again.



Two rectangles were cut out of the folded paper as shown in the diagram.



What did his paper look like when he unfolded it?



In the magic square below, every row, every column and each of the two diagonals add to the same number.

				Row totals
	9	14	13	38
15	12			
X	6		Y	
16		4		
Column totals				38

What is the value of X?

☐ 5

☐ 7

☐ 8

☐ 10

The magic square appears below where every row, every column and each of the two diagonals add to the same number.

	9	14	13	Row totals ↓ 38
15	12			
X	6		Y	
16		4		
Column totals →			38	

What is the value of Y?

☐ 10

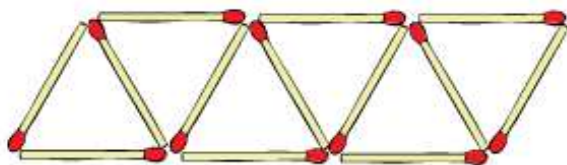
☐ 8

☐ 17

☐ 18



John was using matchsticks to make a pattern involving triangles.



When there were six triangles in the pattern John used 13 matchsticks.

How many matchsticks would be needed for there to be 12 triangles in the pattern?

☐ 25

☐ 26

☐ 31

☐ 36



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Leon is a bricklayer and he lays bricks at the rate of 64 per hour.

Which number sentence gives the number of bricks laid by Leon in 35 min?

$$64 \times 60 \div 35$$

☐

$$64 \div 35 \div 60$$

☐

$$64 \div 60 \times 35$$

☐

$$60 \div 64 \times 35$$

☐

$$150 \times 12 = \blacktriangle \times 3$$



What is the value of  $\blacktriangle$  ?

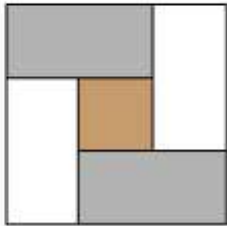
☐ 400

☐ 500

☐ 560

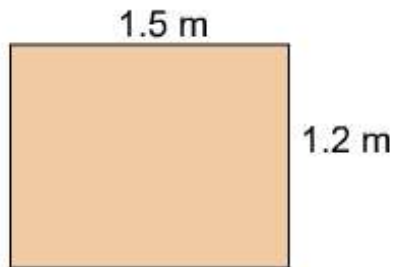
☐ 600

Gavin wants to tile a floor using this pattern of tiles.



The brown square has sides of length 10 cm. The white and grey rectangles are the same size and are each exactly covered by two brown squares.

How many white rectangles will be needed to cover this floor with the tiling pattern?



☐ 20

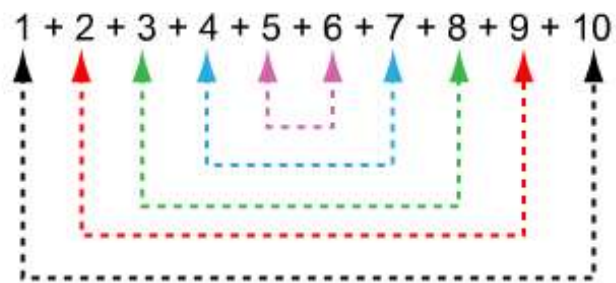
☐ 40

☐ 60

☐ 80

Hui needs to add the whole numbers from 1 to 10.

She pairs up the numbers to help her with the addition.



What is the sum of the numbers?

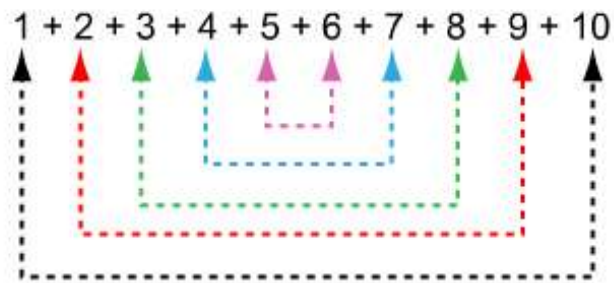
☐ 55

☐ 58

☐ 62

☐ 65

Hui needs to add the whole numbers from 1 to 10.  
She pairs up the numbers to help her with the addition.



Hui also uses pairs to find the sum of the numbers 1 to 100.  
 $1 + 2 + 3 + \dots + 98 + 99 + 100$

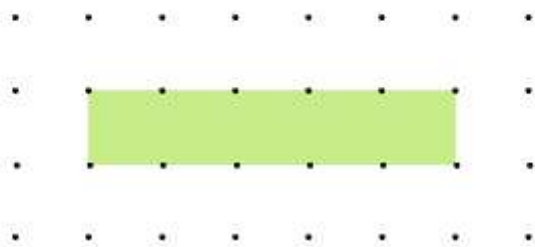
What is the sum of the whole numbers 1 to 100?

☐ 5000

☐ 5005

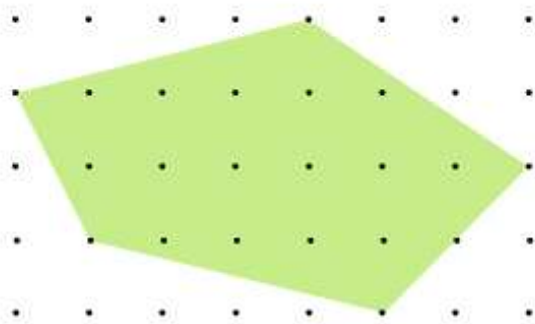
☐ 5050

☐ 5500



The shaded area above is 5 square units.

What is this area?

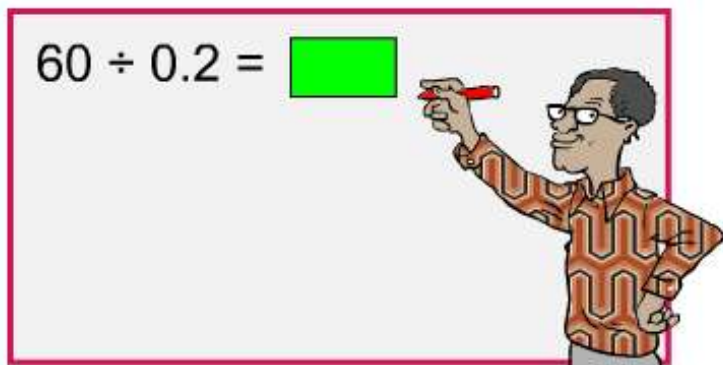


☐ 15 square units

☐ 16 square units

☐ 17 square units

☐ 18 square units



What is the missing number?

☐ 12

☐ 30

☐ 120

☐ 300



Train Timetable					
Featherstone	8:20	8:35	8:50	9:10	9:30
Ashby	8:28	8:43	8:58	9:17	9:37
Redhill	8:35	8:50	9:05	9:24	9:43
Jennings	8:40	8:55	9:10	9:29	9:48
Pottsville	8:47	9:02	9:17	9:36	9:55
Dunston	8:53	9:08	9:23	9:42	10:01
City	8:58	9:13	9:28	9:47	10:06

Edward has an appointment in the city at twenty to ten. It will take him eight minutes to walk from the station and he wants to be five minutes early.

Which is the latest train that Edward can catch from Redhill so that he arrives at least five minutes early?

☐ 8:35

☐ 8:50

☐ 9:05

☐ 9:24

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Featherstone	8:20	8:35	8:50	9:10	9:30
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City	8:58	9:13	9:28	9:47	10:06

Ming catches the train at Ashby at 8:43 and travels to Pottsville. She spends exactly one and a half hours in Pottsville and then catches a train back to Ashby.

If the return journey takes exactly the same time as the forward journey, at what time will Ming arrive back in Ashby?

☐ 10:32

☐ 10:45

☐ 10:51

☐ 10:57

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Which statement is **not** correct?

- ☐ The trip from Jennings to the city takes 18 minutes.
- ☐ The 9:30 from Featherstone takes the shortest time to reach the city.
- ☐ The longest time between stops is 8 minutes.
- ☐ Trains leave Featherstone at 15-minute intervals.



Marty uses 20 litres of petrol to drive 250 kilometres.

At this rate, how many litres did he use to drive 100 kilometres?

☐ 6 L

☐ 7 L

☐ 7.5 L

☐ 8 L