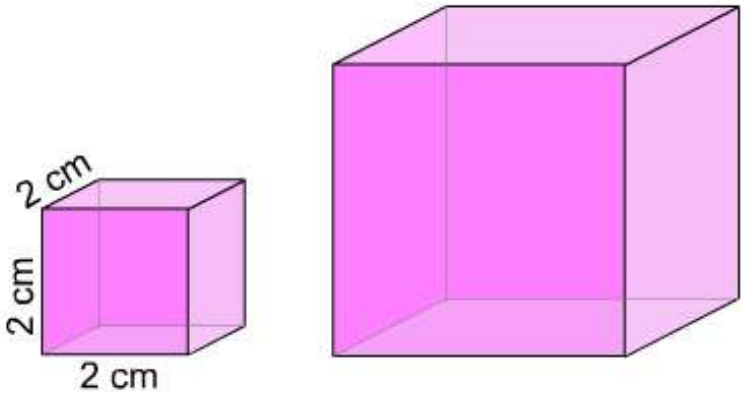


Ryse worked out the volume of a cube with side 2 cm.

A new cube is formed by doubling the length of each side.

What is the increase in volume?

- $8\ cm^3$
- $16\ cm^3$
- $48\ cm^3$
- $56\ cm^3$

Karan builds a pattern of towers using cubes.

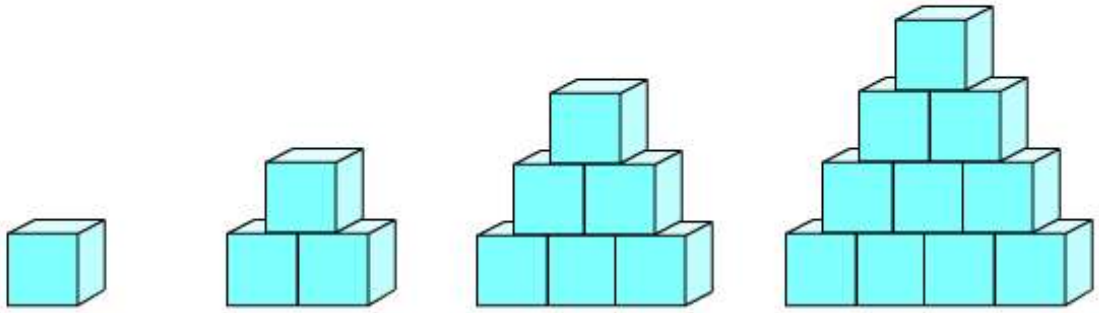


Figure 1 Figure 2 Figure 3 Figure 4

If she continues the pattern, how many cubes will be used in Figure 6?

- 21
- 22
- 23
- 24

Karan builds a pattern of towers using cubes.

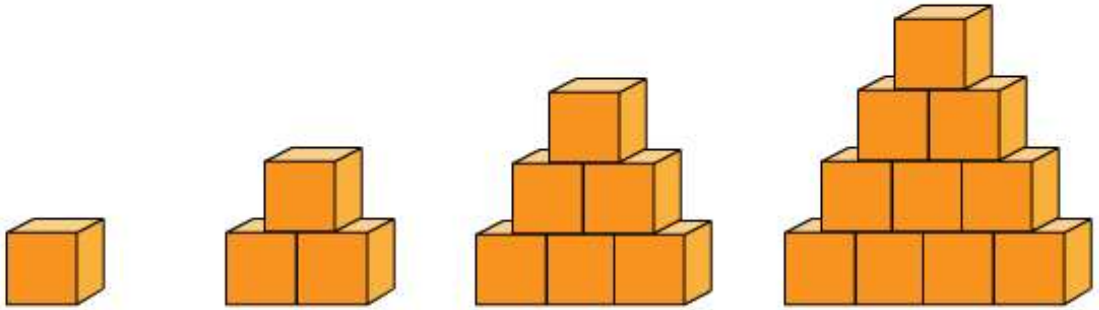


Figure 1 Figure 2 Figure 3 Figure 4

If she continues the pattern, which figure would contain 78 cubes?

- Figure 9
- Figure 10
- Figure 11
- Figure 12

Greg has some golf balls and he wants to give them all away.

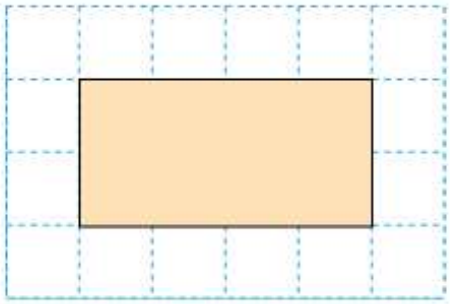
If he shares the balls equally between three friends, there is one left over.

If he shares the balls equally between four friends, there is one left over.

If he shares the balls equally between five friends, there is one left over.

What is the smallest number of balls Greg can have?

- 31
- 51
- 61
- 121



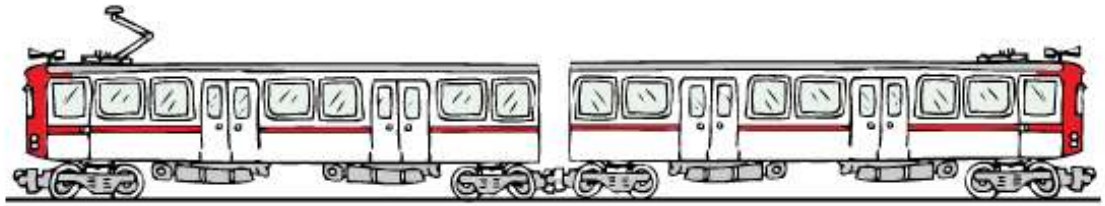
A grid is made up of small identical squares.

A rectangle has been drawn on the grid.

Its length is 6 cm longer than its breadth.

What is the area of the rectangle?

- $8\ cm^2$
- $18\ cm^2$
- $36\ cm^2$
- $72\ cm^2$



The train trip from Lochinvar to Broadmeadow takes 48 minutes.

If the train leaves Lochinvar at 12:32 pm, what time will it arrive at Broadmeadow?

- 1:00 pm
- 1:10 pm
- 1:20 pm
- 1:40 pm

A map is formed on a grid using squares of length 1 unit.

Every unit on the map represents 4 km.

What is the shortest distance from Abcliffe to Rendale?

- 4 km
- 8 km
- 16 km
- 32 km

A map is formed on a grid using squares of length 1 unit.

Every unit on the map represents 4 km.

The distance on the map from Abcliffe to Sanctuary is about 3 units.

What is the best estimate for the distance from Abcliffe to Lonsdale?

- 18 km
- 24 km
- 28 km
- 32 km

$$\frac{4}{\Delta} = \frac{\Delta}{36}$$

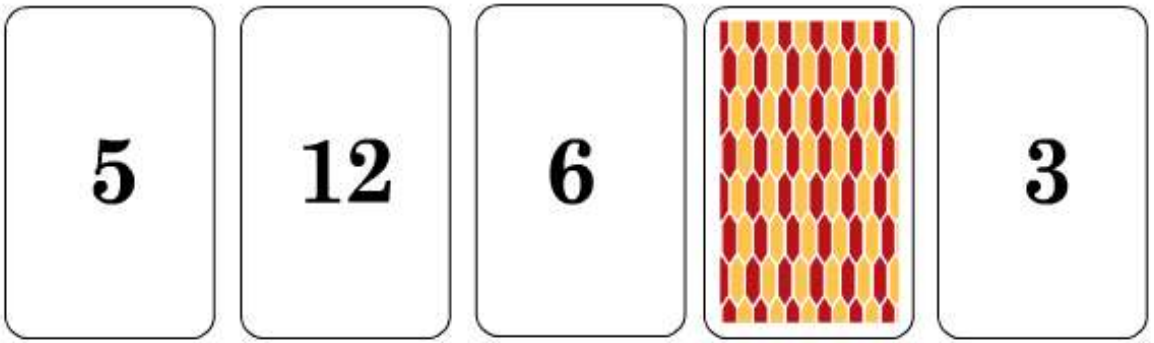
What is the value of Δ ?

- 6
- 12
- 16
- 20

Five numbers are written on cards.

The average of the five numbers is 7.

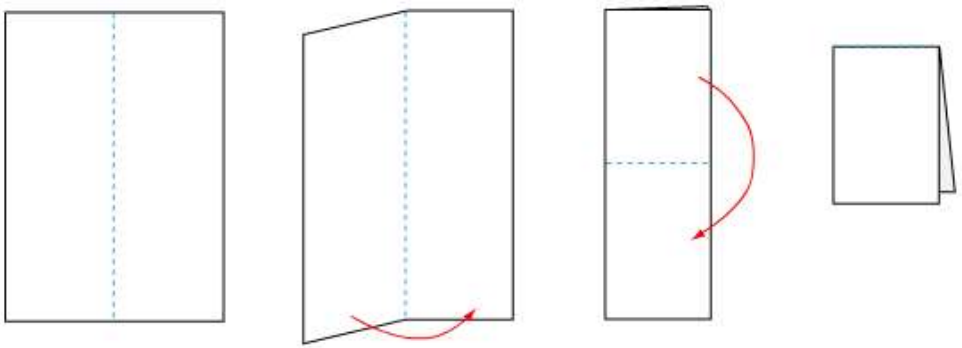
Four of the cards are face up but one card is face down and its number cannot be seen.



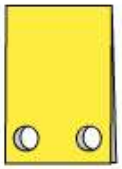
What number is written on the unknown card?

- 5
- 7
- 9
- 11

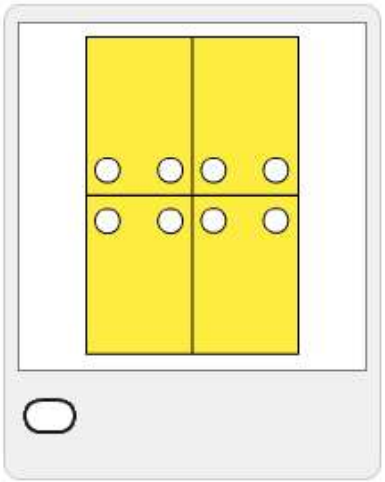
Jenni folded a sheet of paper in half and then folded it in half again.

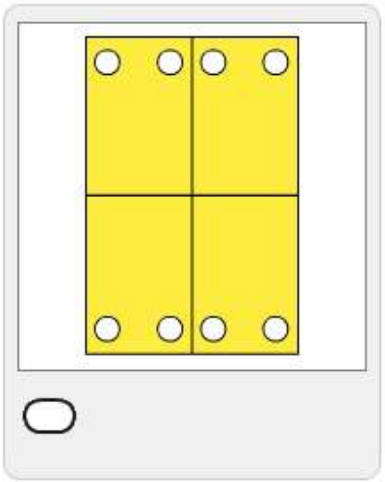


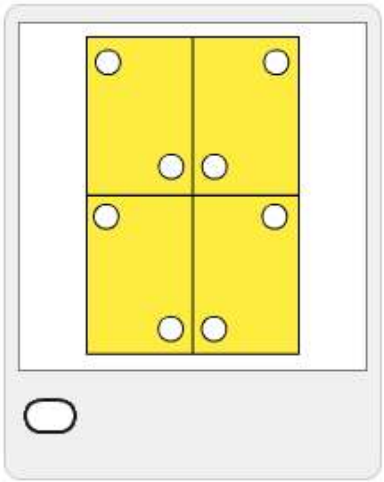
Two holes were punched out of the folded paper as shown in the diagram.

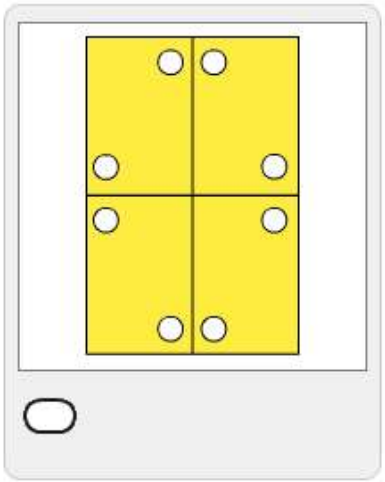


What did her paper look like when she unfolded it?





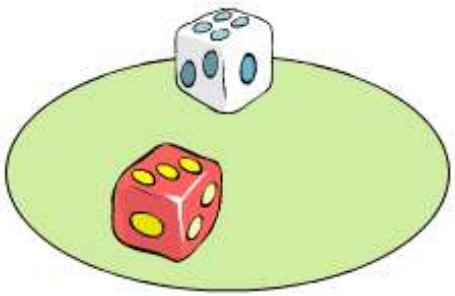




Chiara rolls a pair of dice.

One die is red and the other is white.

When the dice are rolled the numbers are added together.



How many different ways can Chiara roll a total of 7?

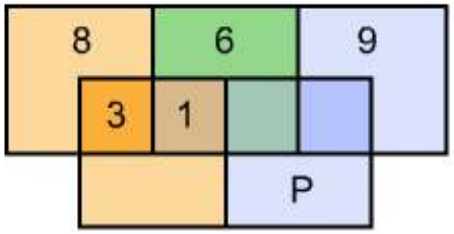
- 4
- 5
- 6
- 7

The diagram below shows five identical squares that overlap.

The numbers 1, 2, 3, 4, 5, 6, 7, 8, and 9 are placed in the squares, one number in each closed section of the shape.

The sum of numbers in each of the five squares is the same.

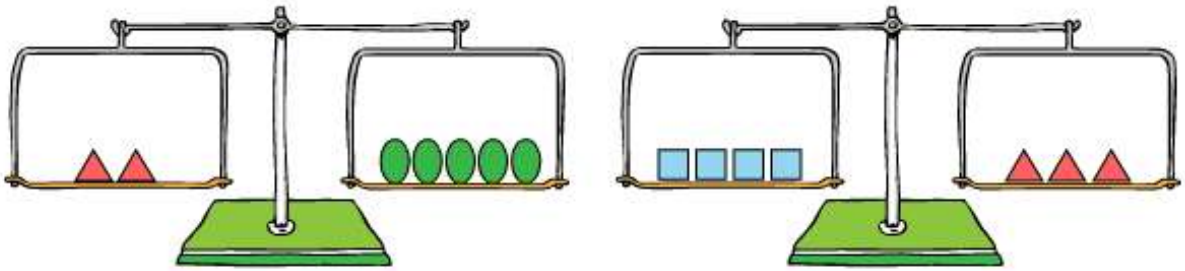
Some of the numbers are missing.



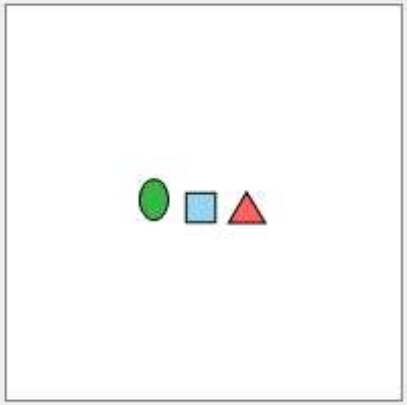
The number missing at **P** is

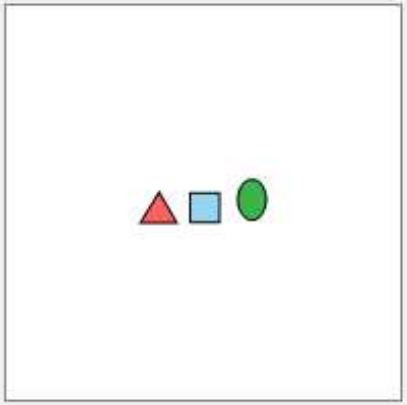
- 2
- 4
- 5
- 7

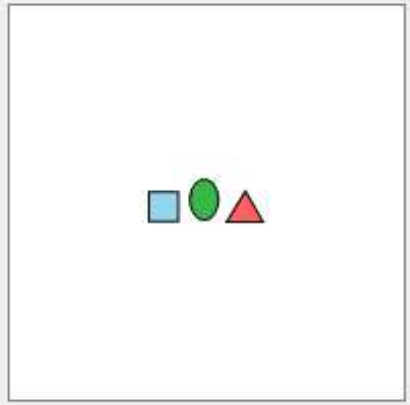
Both of these scales are evenly balanced.

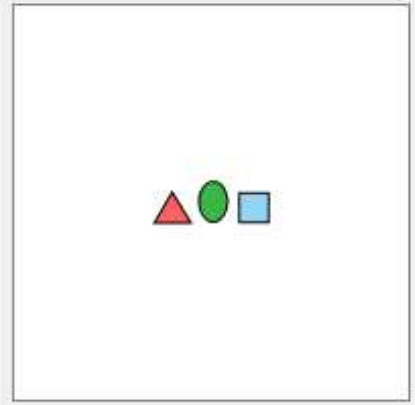


What is the correct arrangement from lightest to heaviest?





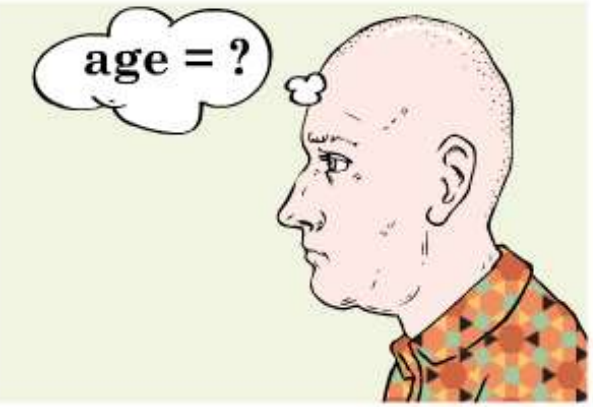




Brian is 24 years younger than Pierce.

Dave is one-fifth the age of Brian.

Dimity is 12 years older than Dave.



If Dimity is 16, how old is Pierce?

- 30 years old
- 36 years old
- 40 years old
- 44 years old

Angelina and Brad are both planning a train journey from Sydney to Perth and then a flight to return to Sydney.

They use the tables below to find the total cost of the trip.

By **train**:

$ per person one-way	Gold service	Red service	
Sydney–Perth or Perth–Sydney		Sleeper cabin	Daynighter seat
Adult	1908	1322	676

By **plane**:

$ per person one-way	Supa saver	Basic	Corporate	First class
Sydney–Perth or Perth–Sydney	225	630	779	940

Angelina books a sleeper cabin from Sydney to Perth and makes a corporate booking on the flight from Perth to Sydney.

Brad books the cheapest train ticket from Sydney to Perth and the cheapest plane ticket from Perth to Sydney.

How much more will Angelina's trip cost than Brad's trip?

- $1200
- $1365
- $1560
- $1650

Harry and Larry went on a cruise together.

Harry took $2000 and Larry took $1000 spending money.

Altogether on their holiday they spent $2400.

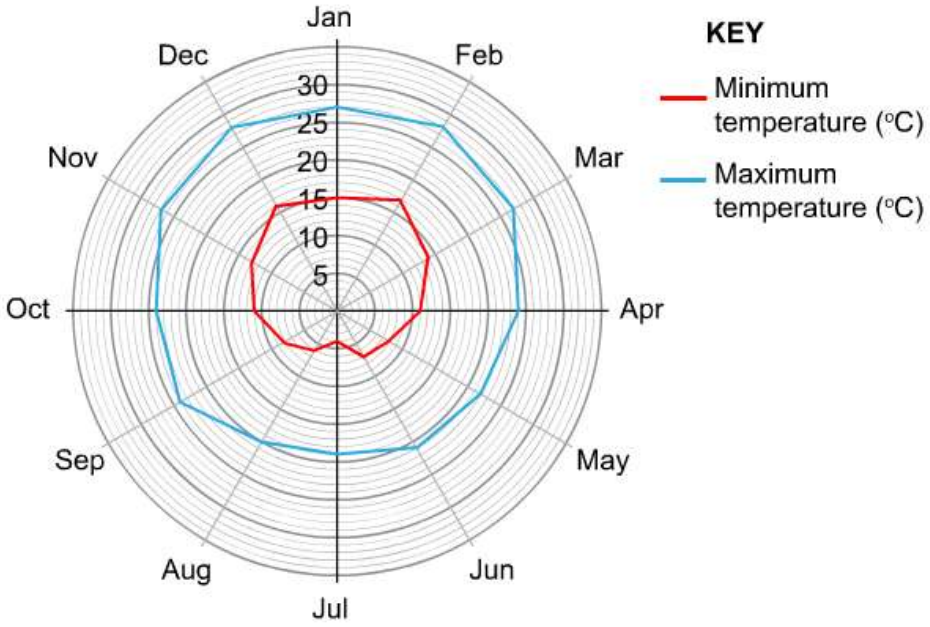
At the end of their cruise, Harry had three times as much spending money left over as Larry.

How much did Larry have left over?

- $150
- $200
- $450
- $600

This graph shows the average monthly maximum and minimum temperatures for a town.

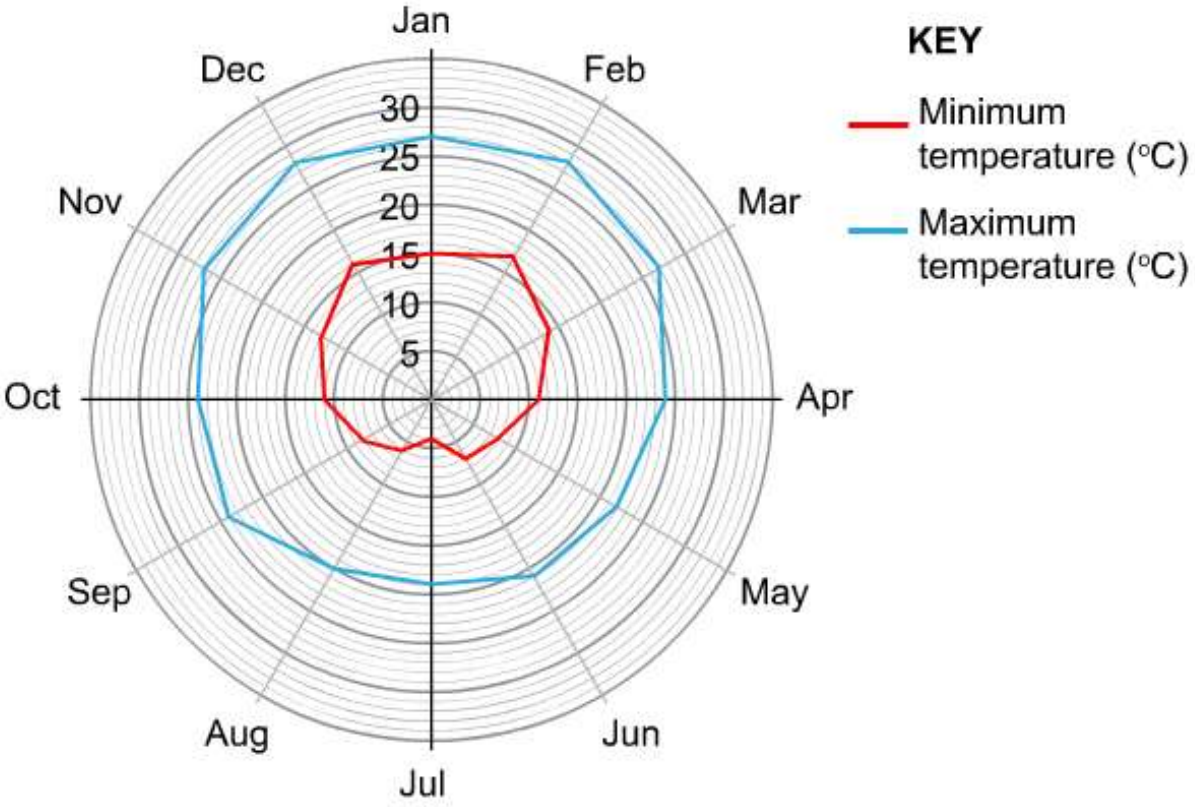
Maximum and minimum temperatures (°C)



Which two months have both the same maximum temperature and the same minimum temperature?

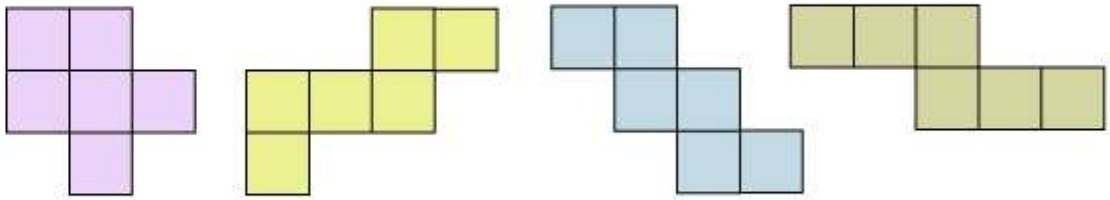
- February and December
- March and November
- April and October
- May and September

This graph shows the average monthly maximum and minimum temperatures for a town.



Which month has the biggest difference between the maximum temperature and the minimum temperature?

- June
- July
- August
- September



How many of the above nets will make a cube?

- 1
- 2
- 3
- 4