



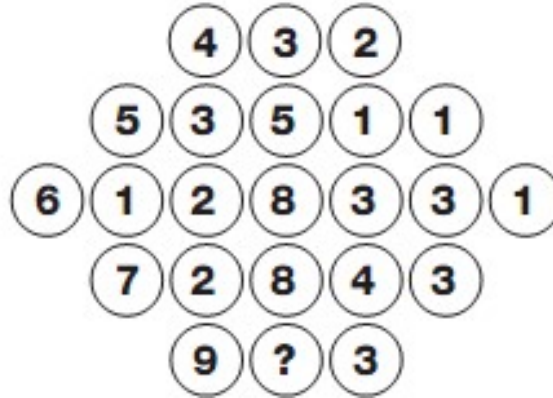
**Puzzles, cubes, data sufficiency, Analogy**



# Puzzles



What number comes inside the circle?



**Answer:6**

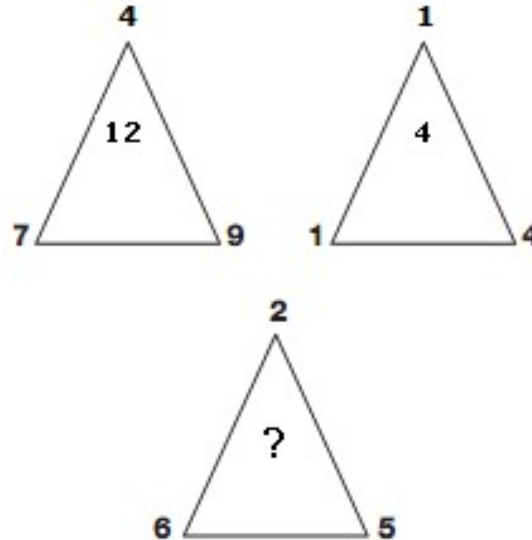
**Explanation:**

Looking at the diagram in rows, the central circle equals half the sum of the numbers in the other circles to the left and right of the centre.



# Puzzles

Which number replaces the question mark?



**Answer: 9**

**Explanation:**

The number at the centre of each triangle equals the sum of the lower two numbers minus the top number.



# Cubes



## Introduction:

In a cube or a cuboid there are six faces in each.

In a cube length, breadth and height are same while in cuboid these are different.

In a cube the number of unit cubes =  $(\text{side})^3$ .

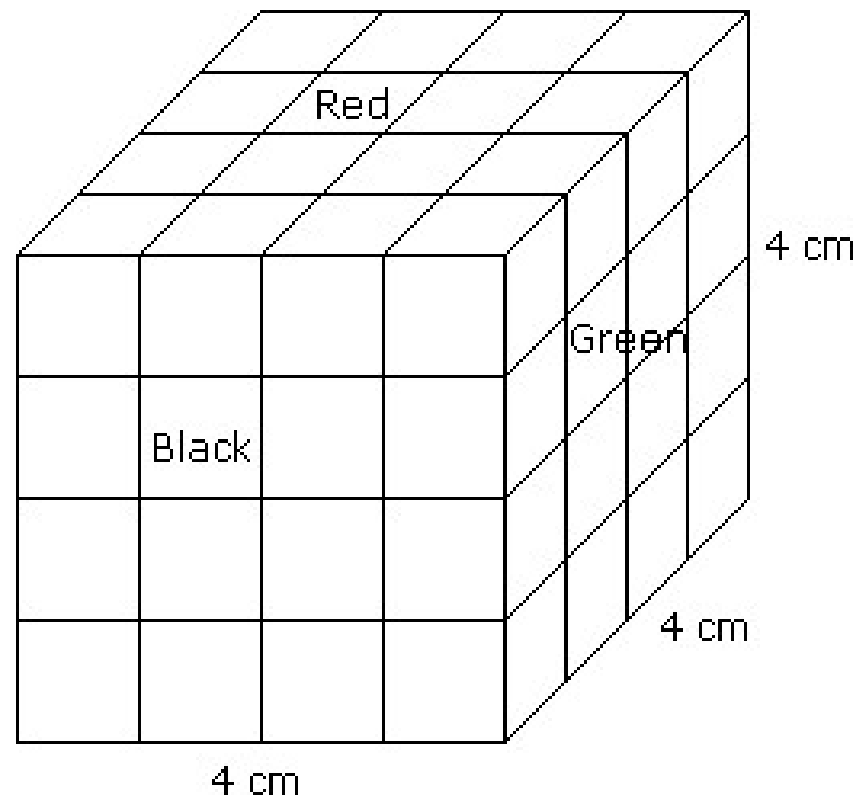
In cuboid the number of unit cube =  $(l \times b \times h)$ .



# Cubes

## Example:

A cube of each side 4 cm, has been painted black, red and green on pairs of opposite faces. It is then cut into small cubes of each side 1 cm.





# Cubes



The following questions and answers are based on the information give above:

**1. How many small cubes will be there ?**

Total no. of cubes = (sides)<sup>3</sup> = (4)<sup>3</sup> = 64

**2. How many small cubes will have three faces painted ?**

From the figure it is clear that the small cube having three faces coloured are situated at the corners of the big cube because at these corners only three faces of the big cube meet.

Therefore the required number of such cubes is always 8, because there are 8 corners.



# Data sufficiency

In each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

Give answer

(A) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question

(B) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question

(C) If the data either in statement I alone or in statement II alone are sufficient to answer the question

(D) If the data given in both statements I and II together are not sufficient to answer the question and

(E) If the data in both statements I and II together are necessary to answer the question



# Data sufficiency

**Question:** In which year was Rahul born ?

**Statements:**

Rahul at present is 25 years younger to his mother.

Rahul's brother, who was born in 1964, is 35 years younger to his mother.

**A.** I alone is sufficient while II alone is not sufficient

**B.** II alone is sufficient while I alone is not sufficient

**C.** Either I or II is sufficient

**D.** Neither I nor II is sufficient

**E.** Both I and II are sufficient

**Answer:** Option E

**Explanation:**

From both I and II, we find that Rahul is  $(35 - 25) = 10$  years older than his brother, who was born in 1964. So, Rahul was born in 1954.





# Data sufficiency



**Question:** What will be the total weight of 10 poles, each of the same weight ?

**Statements:**

One-fourth of the weight of each pole is 5 kg.

The total weight of three poles is 20 kilograms more than the total weight of two poles.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient



# Data sufficiency

**Answer: Option C**

**Explanation:**

From I, we conclude that weight of each pole =  $(4 \times 5)$  kg = 20 kg.

So, total weight of 10 poles =  $(20 \times 10)$  kg = 200 kg.

From II, we conclude that:

Weight of each pole = (weight of 3 poles) - (weight of 2 poles) = 20 kg.

So, total weight of 10 poles =  $(20 \times 10)$  kg = 200 kg.



# Analogy

## Introduction:

Analogy means **similarity**. In this type of questions, two objects related in some way are given and third object is also given with four or five alternatives. You have to find out which one of the alternatives bears the same relation with the third objects as first and second objects are related.

## Example 1:

Curd : Milk :: Shoe : ?

(A) Leather      (B) Cloth

(C) Jute          (D) Silver

Answer: Option A

As curd is made from milk similarly shoe is made from leather.



# Analogy

## Example 2:

Calf : Piglet :: Shed : ?

(A) Prison      (B) Nest

(C) Pigsty      (D) Den

Answer: Option C

Calf is young one of the cow and piglet is the young of Pig. Shed is the dwelling place of cow. Similarly Pigsty is the dwelling place of pig.

## Example 3:

Malaria : Mosquito :: ? : ?

(A) Poison : Death      (B) Cholera : Water

(C) Rat : Plague      (D) Medicine : Disease

Answer: Option B

As malaria is caused due to mosquito similarly cholera is cause due to water.



# Summarize