

Sec II

Q6

Q

Given Data:

Son age is Now = 30 year.

Father age 5 yrs ago = 3 times of

Son age.

Find:

Current age of Father.

Solution:

Let's Father current age = x .

Son current age = 30 years.

Now 5 years ago.

$$5x - x = 3 \times 30.$$

$$4x = 90$$

$$x = \frac{90}{4}$$

$$x = 22.2$$

Now:- the current age of Father will be

$$= 22.2 \times 3 = \boxed{66.6 \text{ years}}$$

(b)

(b) Given Data:
Mean of number 10, 30, Y & 50 = 50

Find value of Y.

Solution:

Now we know that

$$\text{Mean} = \frac{\text{Sum of all values}}{\text{Total number of value}}$$

Putting the given data in the equation

$$= 50 = \frac{10 + 30 + Y + 50}{4}$$

$$= 50 \times 4 = 10 + 30 + Y + 50$$

$$= 200 = 90 + Y$$

Py

$$= 200 - 90 = Y$$

$$Y = 110$$

(c) Find the Missing Number.

0, 2, 6, 18, 54, _____

If we observe the pattern followed in the above series then it becomes clear that every number is multiplied with the digit 3.

So the required number will be

2 6 18 54 162

iii) 3125, 256 4, 1.

So if we observe the above series
side is multiplied with digit 4.
So every number from the base

3125 256 64 4 ↑

(d) Given Data.

product of two number = 320

Ratio = 1:5

Find:

what is the difference between
the squares of these two numbers.

Sol:

Let's take two number x & y

$$x \times y =$$

$$x \times y = 320 \rightarrow (1)$$

Their Ratio

$$\frac{x}{y} = \frac{1}{5} \rightarrow (2)$$

Now from equation (2)

$5x = 24 \rightarrow \textcircled{3}$
Putting the value of y in eq. $\textcircled{1}$.

$$x \times 5x = 320$$

$$= 5x^2 = 320$$

$$x^2 = \frac{320}{5}$$

$$x^2 = 64$$

$$x = 8$$

Now As per their given ratio eq. $\textcircled{3}$
the y value will be 40 .

$$5 \times 8 = 40$$

Now the two numbers are: 8 & 40 .

Now the difference between their
squares is

$$(40)^2 - (8)^2$$

$$= 1600 - 64$$

$$= \boxed{1536}$$

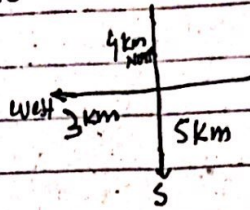
$$= \boxed{1526}$$

1536 ✓

Q8:

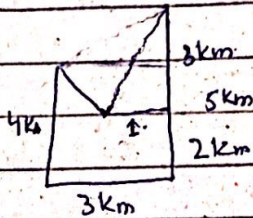
(9)

Given Data.
A cow travels.



Find How far is the Cow From Initial Point.

Sol



Now As per the formula of Pythagoras theorem.

$$(\text{Hypotenuse})^2 = (\text{Base})^2 + (\text{Perpendicular})^2$$

Now next to find P.

$$(P)^2 = (H)^2 - (\text{Base})^2$$

$$(P)^2 = (3)^2 - (4)^2$$

$$P = \sqrt{(3)^2 - (4)^2} \quad 2.6 \text{ km}$$

~~$P = 2 \text{ km}$~~ So the cow is 2 km away from initial point

Q8 (b).

Given Data.

Total number of slice in Pizza = 8.

Slice contains raisin = 3.

Find: Probability of slice with Raisin?

Sol

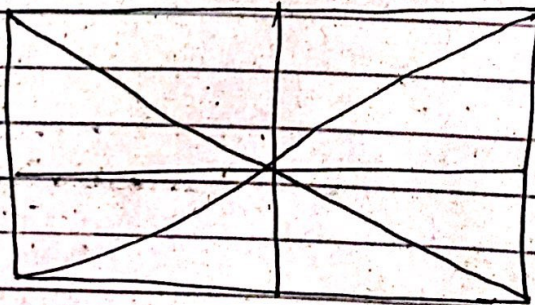
As we know that

Probability of an event = $\frac{\text{No of Sample space}}{\text{total number of possible outcome}}$

here

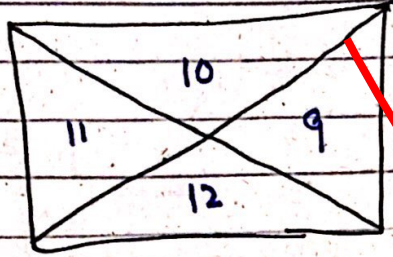
$$P = \frac{3}{8}$$

(c) Find the total number of Triangle:



To Find the number of

triangle we open up this whole figure.

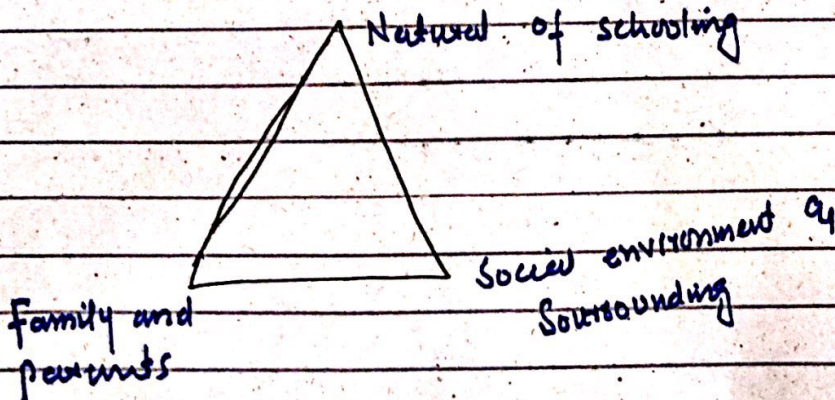


So there are total 12 numbers of triangle in the whole figure.

Q 8 (d).

Factors which can affect IQ.

Intelligent Quotient can be affected by various factors.



i) Nature of Schooling. It is an irrefutable

claim that the type of schooling for a student highly affect its IQ.

For instance: If the school system is based on rote learning and devoid of STEM based curriculum then it will definitely stunt the mental growth of a student.

ii) Social Surrounding and Environment can also affect the IQ.

IQ can also be affected in two major ways. If the social environment is conducive to learning and enrich of ideas, visions then it grows the IQ of a student. On the other hand if it is not conducive then it retards the growth in the same way as in it grows the IQ.

iii) Family and parents.

Family and parents are the first school which provide socialization to a person. Most of the time a student spend it in home. If parents and family nurture skills, ideas and healthy information in a child then his IQ will be groomed and flourished.