

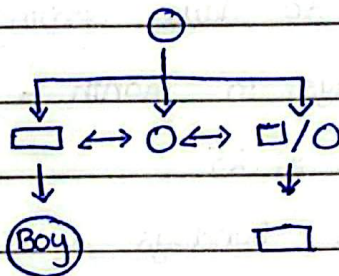
QUESTION NO.1

(PART NO. A)

Three consecutive prime numbers are 37, 39 and 41.

$$37 + 39 + 41 = 97$$

(PART NO. B)



Boy is cousin of that girl.

(PART NO. C)

$$\text{Two dice} = 6 \times 6 = 36$$

Possible number of even sum = 12

$$1+3, 2+4, 3+1, 4+2, 5+1, 6+2$$

$$1+5, 2+6, 3+5, 4+6, 5+3, 6+4$$

$$\text{Probability} = \frac{12}{36} = 0.333$$

$$= 0.333 \times 100$$

$$\text{Probability} = 33.3 \%$$

33.3% is the probability of getting two numbers whose product is even.

(PART NO. D)

Average visitors on Sunday = 510

Average visitors on other days = 240

Average visitors per day = ?

Month of 30 days starting with Sunday

Total Sundays in month = 5

Other days = 25

Visitors on Sundays = $510 \times 5 = 2550$

Visitors on other days = $240 \times 25 = 6000$

Total visitors in that month = 8550

Visitors per day = 8550

30

Average visitors/day = 285

QUESTION NO. 3

(PART NO. A)

A takes 15 days to complete a work.

B takes 20 days.

Lets assume ;

A folds 100 packets in 15 days.

B does the same job in 20 days.

A, B folds how many packets in a day:

$$A = \frac{100}{15} = 6.66 \text{ packets}$$

$$B = \frac{100}{20} = 5 \text{ packets.}$$

If A and B have to fold 100 packets together; they will fold in 4 days

$$A = 4 \times 6.66 = 26.64 \text{ packets}$$

$$B = 4 \times 5 = 20 \text{ packets.}$$

So,

$$A \text{ and } B \text{ folded} = 46.64 \text{ packets.}$$

Hence, 54.46% of work is still remaining.

(PART NO. D)

1) 2, 3, 6, 4, 5, 20, 6, 3, 18

2) 1, 3, 9, 15, 25, 39, 49

3) 2, 7, 10, 22, 18, 37, 26, 52

4) 34, 7, 37, 14, 40, 28, 43, 56

5) 5, 7, 11, 13, 17, 19

(PART NO. B)

let ;

$$\frac{3x-9}{5x-9} = \frac{12}{23}$$

$$23(3x-9) = 12(5x-9)$$

$$69x - 207 = 60x - 108$$

$$9x = 99$$

$$x = 11$$

$$\text{Now , } 5x = 5 \times 11 = 55$$

$$3x = 3 \times 11 = 33$$

$$\text{smaller number} = 33$$

Date

(PART NO. C)

$$\begin{aligned}\text{Average } A, B, C &= 45 \text{ Kg} \\ &= 45 \text{ Kg} \times 3 \\ &= 135 \text{ Kg}\end{aligned}$$

$$\begin{aligned}A \text{ and } B &= 40 \text{ Kg} \\ &= 40 \text{ Kg} \times 2 \\ &= 80 \text{ Kg}\end{aligned}$$

$$\begin{aligned}B \text{ and } C &= 43 \text{ Kg} \\ &= 43 \text{ Kg} \times 2 \\ &= 86 \text{ Kg}\end{aligned}$$

$$\begin{aligned}(A+B) + (B+C) &= 80 + 86 \\ (A+2B+C) &= 166 \text{ Kg}\end{aligned}$$

$$A + B + C = 135 \text{ Kg}$$

$$(A+2B+C) - (A+B+C) = (166 - 135) \text{ Kg}$$

$$\text{weight of } B = 31 \text{ Kg}$$