Maths

Lubna Ejaz

Q1

(a)

Prime numbers :

3 consecutive

∴ Prime Numbers ⇒

$(x-2) + x + (x+2) = 3x$

$3x \Rightarrow 97$

$\frac{97}{3} \Rightarrow 32.3$

Nearest Prime :

23, 29, 31, 37, 41

$29 + 31 + 37 \Rightarrow (97)$

Answer ⇒ 29, 31, 37

(b) Uncle → Father

↑

Daughter

↑

Girl → Boy

Answer : Cousin

c) $P(\text{Even}) = 1 - P(\text{Both odd})$

Even no $\Rightarrow 3$

odd no $\Rightarrow 3$

$P(\text{Both odd}) \Rightarrow \frac{9}{36}\left[\frac{3}{6} \times \frac{3}{6}\right]$

$P(\text{Even}) \quad 1 - \frac{9}{36} = \frac{36-9}{36} = \frac{27}{36}$

$\frac{9}{12} \Rightarrow \frac{3}{4}$

Answer $\Rightarrow \frac{3}{4}$.

d) Average visitor $\Rightarrow \frac{\text{Total visitors}}{\text{Total days}}$

Sundays $\Rightarrow 5 \times 510 \Rightarrow 6000$

$240 \times 25 = 2550$

Total $\Rightarrow 6000 + 2550 \Rightarrow 8550$

Average $\Rightarrow \frac{8550}{30} \Rightarrow 285$ Answer

Q 3 a.

$$\frac{1}{15} + \frac{1}{20} \Rightarrow \frac{7}{60}$$

work in 4 days

$$\frac{7 \times 4}{60} \Rightarrow \frac{28}{60} \Rightarrow \frac{7}{15}$$

Remaining $\Rightarrow$

$$1 - \frac{7}{15} = \frac{15-7}{15} \Rightarrow \frac{8}{15}$$

Answer $\Rightarrow \frac{8}{15}$.

b) 3 : 5

$3x - 9$: $5x - 9$

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

$$23(3x-9) \Rightarrow 12(5x-9)$$

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

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

$$9x = 99$$

$$x \Rightarrow \frac{99}{9} \Rightarrow 11$$ Ans.

11 Answer

c) Average ⇒ A, B, C ⇒ 45

A B ⇒ 40

B, C ⇒ 43

Weight of B.

A, B, C Sum ⇒ Average × Number

45 ⇒ 40 (45 × 3) ⇒ 135

Sum AB (40 × 2) ⇒ 80

• Weight of B ⇒ 135 − 80

⇒ 55 Answer

d) 1) 1, 2, 3, 6, 4, 5, 20, 6, 3, 18 (6 × 3 = 18)

2) 1, 3, 9, 15, 25, 35, 49 (25 + 10)

3) 3, 2, 7, 10, 22, 18, 37, 26, 52 (37 + 15)

4) 84, 7, 77, 14, 40, 28, 43, (28 × 2) 56

5) 5, 7, 11, 13, 17, 19 (11 + 2)

5