

Question # 1 (A)

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

The missing number could be 6

2. 1, 3, 9, 15, 25, 35, 49

Missing term is 35

3. 2, 7, 10, 22, 18, 37, 26,

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

Missing term is 56

5. 5, 7, 11, 13 17, 19

Missing term is 13

(B)

b Two Numbers - 2:3

Let Number $2x \times 3x = 294$

LCM \times HCF

$$2x \times 3x = 6x^2 = 294$$

$$6x^2 = 294$$

$$\frac{6x^2}{6} = \frac{294}{6}$$

$$x^2 = \frac{294}{6} = 49$$

$$x = \sqrt{49}$$

$$\sqrt{x^2} = \sqrt{(7)^2}$$

$$x = 7$$

Now $x=7$ then put the values.

$$1^{st} = 2(7) \text{ \& } 2^{nd} = 3(7) = \boxed{14 \text{ \& } 21}$$

(C)

Wall $8\text{ m} \times 6\text{ m} \times 22.5\text{ cm}$

$$\text{Wall} = 800\text{ cm} \times 600\text{ cm} \times 22.5\text{ cm} = 10,8000,000\text{ cm}^3$$

Bricks dimension: $25\text{ cm} \times 11.25\text{ cm} \times 6\text{ cm} = 1687.5$

$$\frac{\text{No of Bricks}}{\text{Bricks}} = \frac{108000,000\text{ cm}^3}{1687.5\text{ cm}^3}$$

$$= 64,000$$

(D)

Smaller Number = x

Greater Number = $2x$

$$x + 2x = 98$$

$$3x = 98$$

$$\frac{3x}{3} = \frac{98}{3}$$

$$x = \frac{98}{3} = 32$$

1st Number $x = 32$

Greater No $2x = 32 \times 2 = 64$

Question # 03

(A)

Investment partners x, y, z

$$14x : 8y : 7z = 5 : 7 : 8$$

$$14 \times 5 : 8 \times 7 : 7 \times 8$$

$$70 : 56 : 58$$

(B)

Let consecutive odd number

be $x, x+2, x+4$

$$x + x + 2 + x + 4 = 91$$

3

$$3x + 6 = 91$$

$$3x = 91 - 6$$

$$x + 6 = 91 - 6$$

$$x = 85$$

So, consecutive odd numbers

are 85, 87, 89

(c)

first NO = x

2nd NO = y

40% of $x = \frac{2}{3}$ of y

$$\frac{40\% \cdot x}{100} = \frac{2}{3} y$$

$$0.4x = \frac{2}{3} y$$

$$\frac{4x}{10} = \frac{2y}{3} \quad \text{Cross multiplication}$$

$$12x = 20y$$

$$\frac{x}{y} = \frac{20}{12} = \boxed{\frac{5}{3}} \text{ Answer}$$

(d)

Distance = 4m away from tree

Height = 50m

if Distance = 6m

Height = ? (x)

Divided height by Distance

$$\text{So } \frac{h}{6} = \frac{50}{4}$$

$$\cancel{6} \times \frac{h}{\cancel{6}} = \frac{50 \times 6^3}{4 \times 1}$$

$$h = 25 \times 3$$

$$h = 75$$