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Class NO = 14642  
Madam = -  
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Subject = Maths

Q1 Fill in the blanks.

- 1) (E) None of above
- 2) (B)  $\Delta x = 3, \Delta y = 11$
- 3) (D) None of them
- 4) (E) None of them
- 5) (C) None of them
- 6) (D)
- 7) (E)
- 8) (E)
- 9) (A)
- 10) (E) None of them

CP No Q2 1

(a)  
(A)

Selling price as percentage of Cost

$$\text{Selling price} = 5.67$$

$$\text{Percentage of Cost} = 100$$

$$\text{So } \frac{5.67}{100}$$

Selling price as % Cost = 0.0587 or 5.67%

(b) Selling price = ?

As we formula

$$\text{Markup on Cost} = \frac{(\text{Price} - \text{Cost})}{\text{Cost}}$$

$$\text{Markup on Cost} = 0.26 \frac{(\text{Price} - 4.50)}{4.50}$$

By Cross Multiplications

$$\text{Markup on Cost} = 0.26 \frac{(\text{Price} - 4.50)}{4.50}$$

By cross Multiplication

$$0.26 \times 4.50 = \text{Price} - 4.50$$

$$\Rightarrow 1.17 = \text{Price} - 4.50 - 4.50$$

$$\Rightarrow \text{Price} = \text{price } 1.17 + 4.50$$

$$\text{Selling Price } = 5.67$$

(c) Markup

$$\text{Markup} = \frac{\text{Selling price} - \text{Cost}}{\text{Cost}}$$

$$\text{Markup} = \frac{5.67 - 4.50}{4.50}$$

$$\text{Markup} = \frac{1.17}{4.50}$$

$$\text{Markup} = 0.26 \text{ or } 26\%$$

Q No = 0a part B =

$$(x^2 - 9) \div (x+3) \wedge (4x-3) \div 2 = x$$

$$\Rightarrow \frac{(x^2 - 9)}{x+3} \times \frac{4x-3}{2} = x$$

$$\Rightarrow \frac{\cancel{(x+3)} (x-3)}{\cancel{(x+3)}} \times \frac{4x-3}{2} = x$$

$$\Rightarrow (x-3) (4x-3)$$

$$\Rightarrow \frac{(x-3) \times (4x-3)}{2} = x$$

$$\Rightarrow (x-3) (4x-3) = 2x$$

$$\Rightarrow 4x^2 - 15x - 2x + 9 = 0$$

$$\Rightarrow 4x^2 - 17x + 9 = 0$$

Apply Quadratic formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$a=4 \quad b=-17, \quad C=9$$

$$x = \frac{-(-17) \pm \sqrt{17^2 - 4 \times 4 \times 9}}{2 \times 4}$$

$$x = \frac{+17 \pm \sqrt{289 - 144}}{8}$$

Remaining

$$\Rightarrow \frac{+17 + 12}{8} \quad \frac{-17 + 12}{8}$$

$$\Rightarrow \boxed{x = 3.63}$$

$$\Rightarrow \overline{x = 0.63}$$

Q3  
(A)

put age of sister =  $x$

Age of Brother =  $y$

$$x + y = 60 \text{ (eq 1)}$$

Now

$$x - 2 = 3(52 - x)$$

$$x - 2 = 174 - 3x$$

$$x + 3x = 174 + 2$$

$$4x = 176$$

$$x = 44$$

Now put in (eq 1)

$$x + y = 60$$

$$y = 60 - 44$$

$$y = 16$$

(B)

Selling price = 18.75

Cost = 15

Mark based on Cost = 3.75

Percentage markup based on Cost

$$3.75 / 15 \times 100 = 25\%$$

Q4 A

List price = \$ 150

Trade discount = 20%. find the net

Solution:-

$$\begin{aligned} & \text{List Price} - \text{discount} \\ \text{Net Cost} &= 150 - 0.2(150) \\ \text{Net Cost} &= 150 - 30 \\ \text{Net Cost} &= \$ 120 \end{aligned}$$

B

Heat and Electricity Cost = 1080

Let the consumption of Light =  $x$

consumption of Heat is =  $3x$

Now Much each expense Cost be Company

Solution:-

$$1 + 3 = 4$$

So, the expense of Light =  $\frac{1}{4} \times 1080$

$$\Rightarrow \frac{1080}{4}$$

$$\Rightarrow \text{Expense of Light} = 270$$

Now the expense of heat?

$$\text{Expense of heat} = \frac{3}{4} \times 1080$$

for simplification first we will multiply 1080 by 3 and then -

Q57a)

Solution:-

Let the time taken by men be  $x$  and boy be  $y$  -

$$\frac{4}{x} + \frac{6}{y} = \frac{1}{5} \rightarrow (1)$$

$$\frac{3}{x} + \frac{4}{y} = \frac{1}{7} \rightarrow (2)$$

Let  $u = \frac{1}{x}$  and  $v = \frac{1}{y}$

$$4u + 6v = \frac{1}{5} \times 3$$

$$3u + 4v = \frac{1}{7} \times 4$$

$$12u + 18v = \frac{3}{5}$$

$$12u + 16v = \frac{4}{7}$$

$$2v = \frac{3}{5} - \frac{4}{7} = \frac{21 - 20}{35} = \frac{1}{35}$$

$$v = \frac{1}{35} \times \frac{1}{2} = \frac{1}{70} = \frac{1}{y}$$

$$y = 70 \text{ days} \quad \boxed{x = 35 \text{ days}}$$

(B)

Solution:-

List price = discount

$$\text{Net cost} = 150 - 0.2(150)$$

$$\text{Net cost} = 150 - 30$$

$$\text{Net cost} = \$120.$$