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 **SUBJECT = BUSINESS MATHS**

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**Q1 MCQS**

**ANSWER:**

1. **E**
2. **B**
3. **D**
4. **E**
5. **D**
6. **E**
7. **E**
8. **E**
9. **A**
10. **E**

**Q2A**

**Answer:**  Cost price= $4.5

 Mark up= 26% = 0.26

Selling price = ( markup x product cost +product cost)

Selling Price = (0.26 x 4.5) + 4.5

Selling Price = $ 5.67

Selling price as a percent of cost price = 5.67/4.5 x 100 = 126% of cost price

Markup = profit/ cost x 100 = 1.17/4.5 x 100 = 26%

**Q2b**

**Answer:** solved by another app because here not that much habitual to use it and draw the formula accurately.

Attached the picture down here



**Q3a**

**Answer:** Let x be the age of the girl and y be the age of her brother

So x+y= 60----------------(1)

 then

x-2 = 3(y-2)

x-2= 3y-6

x-2+6-3y =0

x+4-3y=0

x-3y=- 4----------(2)

adding both

x+y=60

x-3y=-4

4y=64

Y=64/4

**Y=16**

Put y in equation 1

X+y=60

X+16=60

X=60-16

**X=44 Answer**

**Age of the girl 44 and her brother 16**

**Q3b Selling price =18.75**

**Cost =15**

**A) Mark up based on cost?**

**b) Present mark up based on cost ?**

**Answer:** (18.75-15)/15

A) = **0.25**

b) = 0.25x100= **25%**

**Q4a**

**Answer:** List price = 150

Trade discount = 20%=0.2

Find the net cost?

Net Cost = L (1-0.2)

Net cost = 150(1-0.8)

**Net Cost = 120**

**Q4b**

**Answer:**  Let X be the cost of heating purposes

Y be the cost of electricity Then

x+y=1080----------(1)

x=3y-------------(2)

Putting equation 2 in 1

Y+3y=1080 =>4y = 1080

**Y=270**

**X=810**

**Q5 A**

**Answer :** Let 1 man alone can finish the work in X days and 1 boy alone can finish it in Y.
Then
1 man's 1 days work = 1/X
And,
1 boy's 1 day's work = 1/Y
(4 men's 1 day's work )+(6 boys 1 day's work )= 1/5
=> 4/X + 6/Y = 1/5
=> 4U + 6V = 1/5 [ Where 1/X = U and 1/Y =V]
=> 4U + 6V = 1/5 --------(1)

Again
( 3 men's 1 day's work ) + ( 4 boys 1 day's work ) = 1/7
=> 3/X + 4/Y = 1/7
=> 3U + 4V = 1/7 -------(2)
On multiplying (1) by 3 and ,(2) by 4 we get,
12U + 18V = 3/5 --------(3)
And,
12U + 16 V = 4/7 --------(4)
Subtracting (3) and (4) we get,
2V = ( 3/5 - 4/7)
2V = 1/35
V = 1/35 ×2
V = 1/70
1/Y = V
1/Y = 1/70
Y = 70 days
Putting V = 1/70 in equation (1) we get,
4U + 6V = 1/5
4U = ( 1/5 - 6V )
4U = ( 1/5 - 6/70 )
4U = ( 14 - 6 /70)
4U = ( 8/70)
U = 8/70 × 1/4
U = 1/35
1/X = U
1/X = 1/35
**X = 35 days**
 **So it means that 1 man alone can finish the work in 70 days and 1boy alone will take 35 days .**

**Q5 b**

**Answer:** List price = 150

Trade discount = 20%=0.2

Find the net cost?

Net Cost = L (1-0.2)

Net cost = 150(1-0.8)

**Net Cost = 120**