05.09.2020 AN SESSION

1. 

Shobhit buys 300l milk @ 19 / litre.

CP is Rs 5700

If he adds 200 litres of water , it will become 500 litres

200 l water @ 10 / litre.

CP is 5700 + 2000 = 7 700.

He has 500 litres @ 7 700 CP.

He has 510 litres @ 7 800 CP

Selling 400 litres @ 20 / litre =

SP of 400 litres = 400 \* 20 = 8000.

Remaining 100 l + 10 l = 110 l is what he has

Selling 110 litres @ 15 / litre

SP of 110 litres = 110 \* 15 = 1650.

CP of 510 = 7800

SP of 510 = 9650

Profit = SP – CP = 9650 – 7800 = 1850

2. AC A = 40 mins

AC B = 45 mins

LCM (40,45) =360units = Tot work

AC A Eff = 9 units / min

AC B EFF = 8 units / min

AC A+B Eff = (9 + 8 ) units / min

= 17 units / min

Time (A + B) = 360 / 17 = 21 3/17 mins approx. 22 mins

3. 

Marked Price of Tshirt is Rs 2400.

Price of 2 shirts is Rs 2400

Price of 1 shirt is Rs 1200. He is getting Profit % = 33.33%

CP \* (133.33 / 100) = SP

CP \* 4 / 3 = 1200

CP = 1200 \* 3 / 4 = 900

4. 

CP of 12 clips = Rs.60

SP of x clips = Rs 60; Profit of 20 %

CP of 12 clips = SP of x clips

((BQ – SQ )/ SQ )\* 100 = Profit or Loss %

((12 – x) / x) \* 100 = 20 %

1200 – 100x = 20x

1200 = 120x

10 = x

5. 

8-1\* x =(-4)-1

(1 / 8) \* x = - (1/4)

x = - (8 / 4)=-2

6. (10101)2 = Decimal Number

64 32 16 8 4 2 1

1 0 1 0 1

1 + 4 + 16 = 21

7. The no of 5 digit odd numbers.

1,2,3,4,5

\_4ways\_\_ x \_3 ways\_\_ x \_2ways\_\_ x \_1 way\_\_ x \_3 ways\_\_

=72 ways or 72 (5 digit odd numbers.)

8. 1,2,3,4,5,6,7

How many 4 digit numbers can be formed.

\_7ways\_\_ x \_6 ways\_\_\_ x \_5 ways\_\_\_ x \_4 ways\_\_\_ = 840 without repetition

\_7ways\_\_ x \_7 ways\_\_\_ x \_7 ways\_\_\_ x \_7 ways\_\_\_ = 2401 with repetition

9. 4A + 3B = B + 7A

3B – B = 7A – 4A

2B = 3A

2 / 3 = A / B

10. 1 4 9 16 25 36 49 64 81 100

121 144 169 196 225 256 289 324 361 400

441 484 529 576 625 676 729 784 841 900

A perfect aquare cannot end in 2,3,7,8

3-1=2

4-1=3

8-1=7

9-1=8

11. 1 2 3 4 5 6

5 x 4 x 3 x 2 x 1 x 3 =120 \* 3 = 360

12. (1 / 3) \* x – (1 / 4 ) \*x= 7

4x – 3x = 7 \* 12

x = 84.