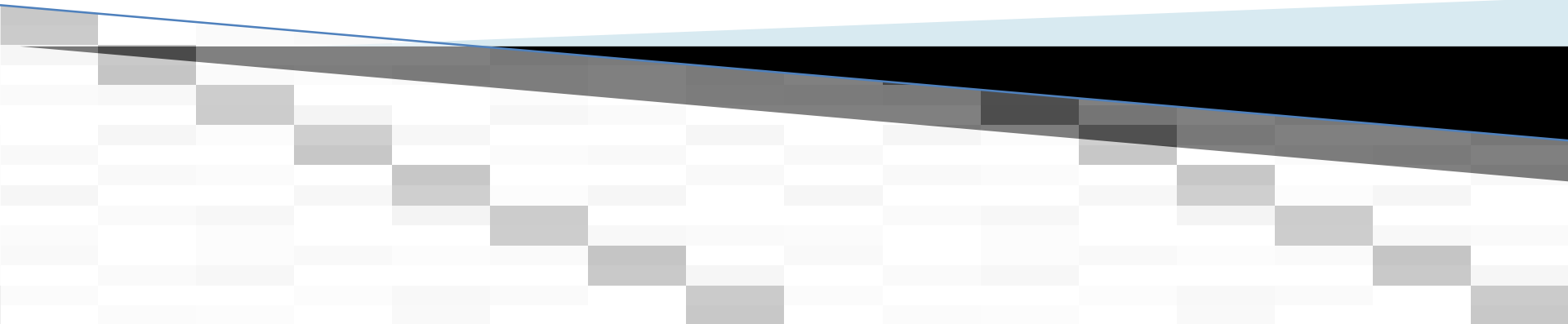




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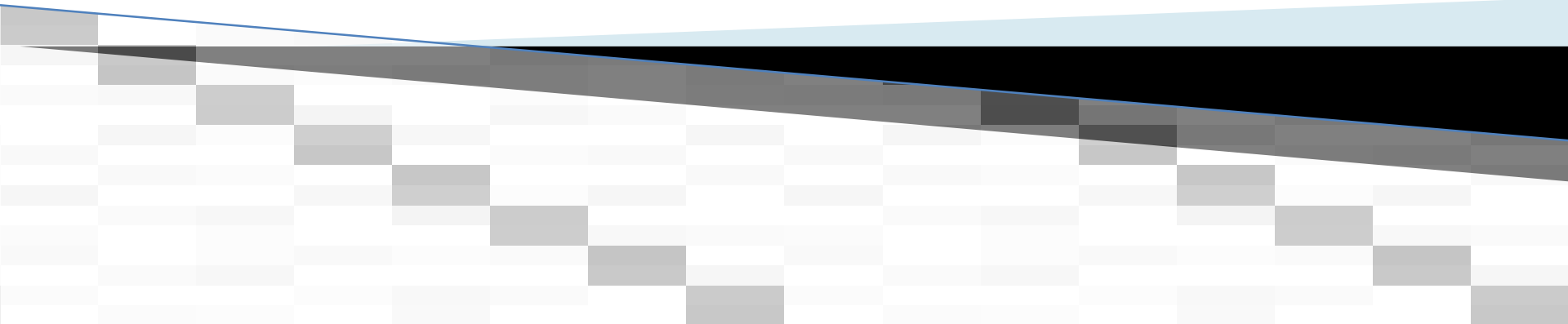
17/06/2020

Engaging starter : what do you know
about discount



Objectives : at the end of today
topic students will be able to :

(i) Recognize marked price (MP) or
list price of an article.



Q:1 Find the selling price ,when

(i)MP = Rs.728 , Discount = 6%

Solution : we know that

$$SP = MP (1 - \text{Discount } \%)$$

$$= 728 (1 - 6\%)$$

$$= 728 (1 - 6/100)$$

$$= 728 (1 - 0.06)$$

$$= 728 (0.94)$$

$$= 684.32 \text{ ans}$$

(ii) MP= Rs.2760, Discount = 5%

Solution : $SP = MP (1 - \text{Discount } \%)$

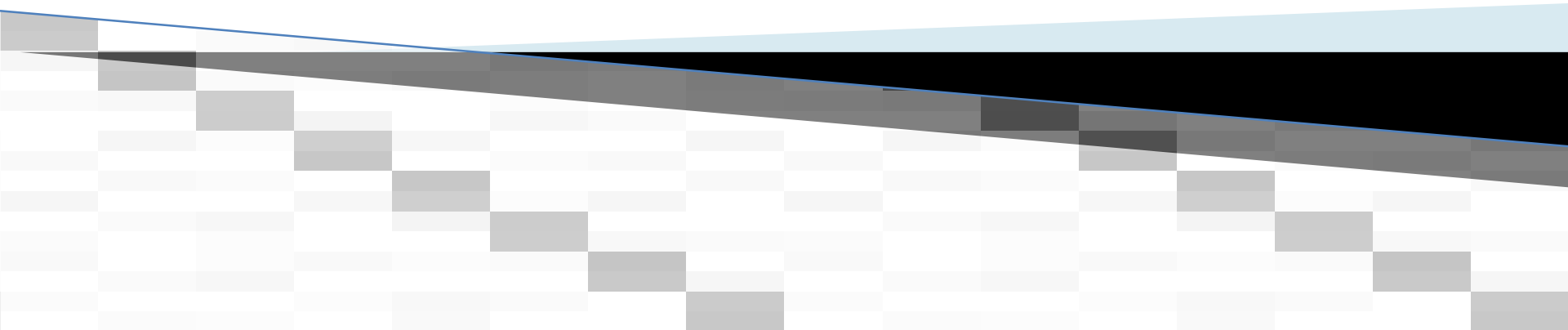
$$= 2760 (1 - 5\%)$$

$$= 2760 (1 - 5/100)$$

$$= 2760 (1 - 0.05)$$

$$= 2760 (0.95)$$

$$= 2622 \text{ ans}$$



Q:2 Find the marked price ,when,

(i) SP = Rs.515.20 ,Discount = 8%

Solution = we know that

$$SP = MP (1 - \text{Discount } \%)$$

$$515.20 = MP (1 - 8\%)$$

$$515.20 = MP (1 - 8/100)$$

$$515.20 = MP (1 - 0.08)$$

$$515.20 = MP (0.92)$$

$$515.20 / 0.92 = MP$$

$$560 \text{ ans} = MP$$

(iii) SP = Rs.2400, Discount = 4%

Solution : we know that

$$SP = MP (1 - \text{Discount } \%)$$

$$2400 = MP (1 - 4/100)$$

$$2400 = MP (1 - 0.04)$$

$$2400 = MP (0.96)$$

$$2400/0.96 = MP$$

$$2500 \text{ ans} = MP$$

Q:3 The marked price of a ceiling fan is Rs.720.It is sold for Rs.684. what percentage discount is being allowed ?

Solution : Give data

MP of ceiling fan	= 720
SP of ceiling fan	= 684
Discount %	= ?

we know that

$$SP = MP (1 - \text{Discount \%})$$
$$684 = 720 (1 - \text{discount \%})$$
$$684/720 = (1 - \text{discount \%})$$
$$0.95 = (1 - \text{discount \%})$$
$$0.95 - 1 = - \text{discount \%}$$
$$- 0.05 = - \text{discount \%}$$
$$0.05 = \text{discount} / 100$$
$$0.05 \times 100 = \text{discount}$$
$$5 = \text{discount}$$
$$5 \% = \text{discount \%}$$

Q : 5 The marked price of a book is Rs.480. The shopkeeper offers a discount of 10% and still gains 8% . Find the price at which the shopkeeper purchased it.

Solution = Give data $MP = 480$

Discount = 10%

SP = ?

we know that $SP = MP (1 - \text{Discount } \%)$

$$= 480 (1 - 10/100)$$

$$= 480 (1 - 0.1)$$

$$= 480 (0.9)$$

$$= 432$$

Now $SP = 432$. Profit (gains) 8%

$$SP = CP (1 + \text{Profit (gains) \%})$$

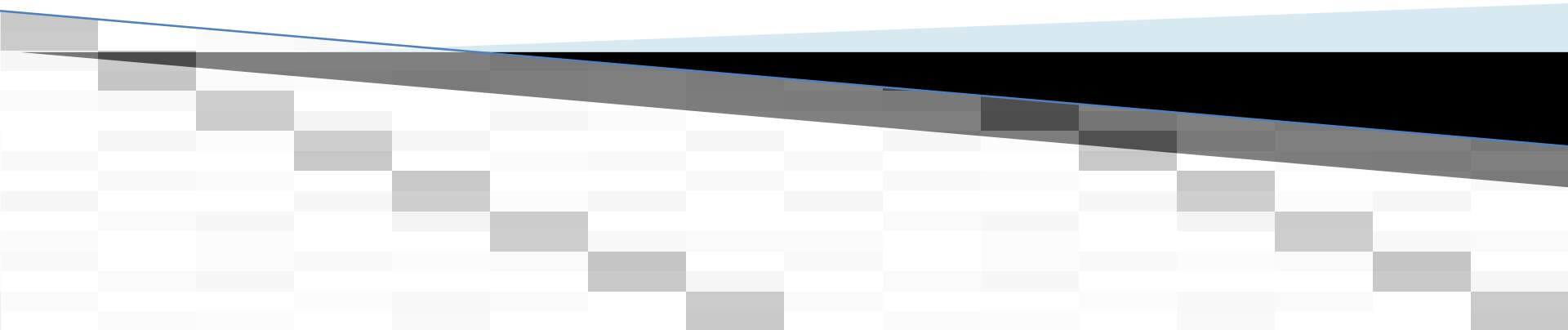
$$432 = CP (1 + 8/100)$$

$$432 = CP (1 + 0.08)$$

$$432 = CP (1.08)$$

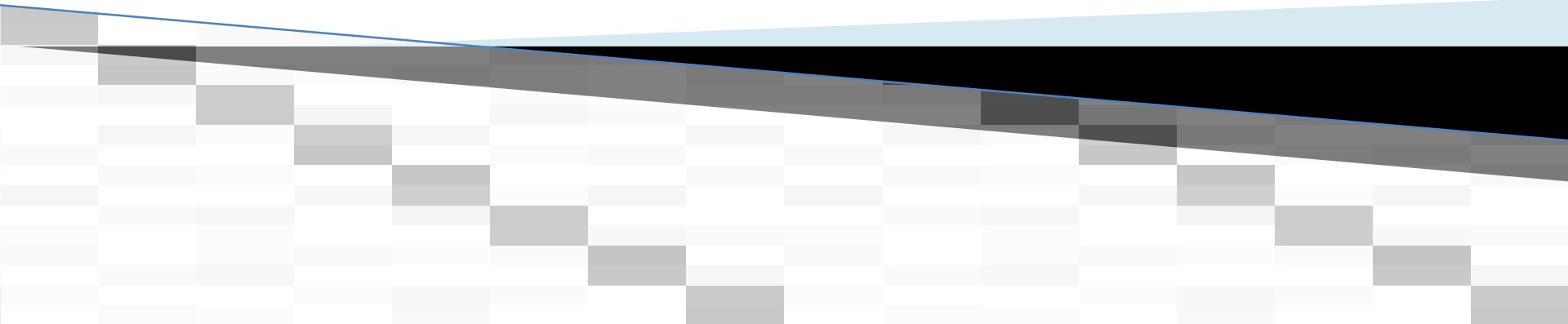
$$432/1.08 = CP$$

$$400 \text{ ans} = CP$$

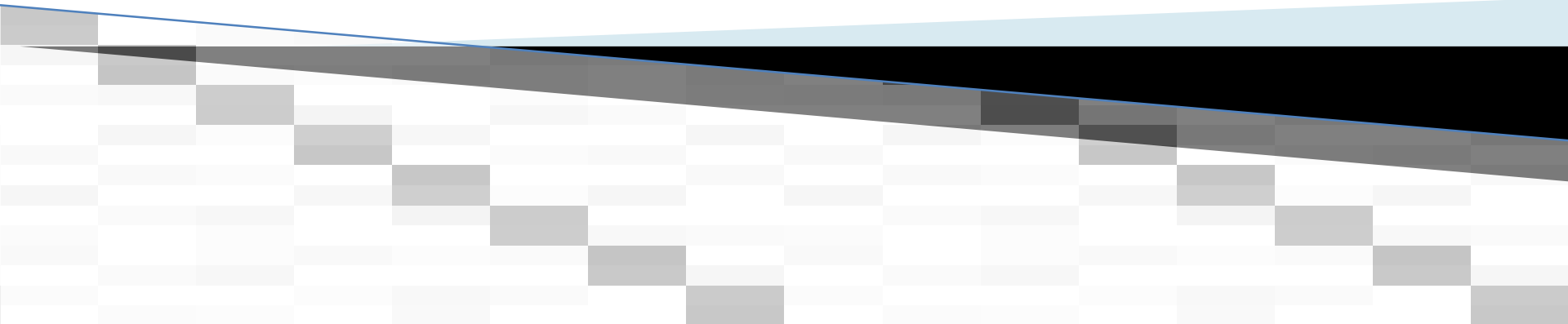


Closure = what is Marked price?

How do we find SP when MP and Discount % is given .



Home work : Q no: 6 page 32
and example 1 and 2 page 57



Engaging starter :

How do we find
discount ?

Objectives : at the end of today's topic students will be able to :

(i) Recognize marked price (MP) or list price of an article

(ii) How the profit among the partners is distributed.

Q :7 The list price of a TV is Rs.12600. A discount of 5% is allowed on it .Further for cash payment a second discount of 2 % is given . How much cash payment is to be made for buying it?

Solution : Given data

$$\text{list price (MP)} = 12600$$

$$\text{Discount} = 5\%$$

$$\text{SP} = ?$$

$$\begin{aligned}\text{We know that } SP &= MP (1 - \text{discount } \%) \\ &= 12600 (1 - 5 \%) \\ &= 12600 (1 - 5/100) \\ &= 12600 (1 - 0.05) \\ &= 12600 (0.95) \\ &= 11970\end{aligned}$$

Now again discount = 2 %

(NOTE SP which we find for 2% more discount it become a MP)

$$MP = 11970$$

$$SP = MP (1 - \text{discount } \%)$$

$$= 11970 (1 - 2\%)$$

$$= 11970 (1 - 2/100)$$

$$= 11970 (1 - 0.02)$$

$$= 11970 (0.98)$$

$$= 11730.6 \text{ ans}$$

Q :8 If 15% discount on MP of a heater is allowed and still makes a profit of 2 % . If it is sold on MP, what is profit percentage ?

Solution : Given data :

let MP =

discount = 15% of

$$= 0.15$$

now $SP = MP - \text{Discount}$

=====

==

$$= \frac{1}{1}$$

Profit = 2%

CP = ?

$$\text{Profit} = \text{Profit \%} \times \text{cp}$$

= 2% CP

= 0.02 CP

Now $CP = SP - \text{Profit}$

$$= 0.85x - 0.02cp$$
$$CP + 0.02CP = 0.85X$$
$$CP(1+.02) = 0.85X$$

Now $CP = 0.833$

$$\text{Profit} = SP - CP$$

$$=$$
$$=$$

$$= 0.167$$

$$\text{Profit \%} = (\quad \times 100)\%$$

$$= (100)\%$$

$$= 20\% \text{ ans}$$

- Exercise 3.3
- Q: 1 Total Profit = 200,000
- Solution : Let A,B.and C be the three share s
now Ratio among A,B,and c = 3:2:5
Sum of ratios = $3+2+5 = 10$
A ,S Share in profit = $200,00 \times \frac{3}{10} = 600,00$
B ,s share in profit = $200,000 \times \frac{2}{10} = 400,00$
c,s share in profit = $200,000 \times \frac{5}{10} = 100,000$

Closure : How do we find Profit %?

Home work : revision of exercise 3.2

Engaging starter : Profit is earned
when :

(i) $SP=CP$ (II) $SP<CP$ (III) $SP>CP$ (IV)
none of these

Objectives : at the end of today topic students will be able to :

(i)How the profit among the partners is distributed

(i)How the business loss is distributed among the partners .

Exercise 3.3

Q:2 If Ali ,Daniyal and Abdullah earned 15% profit against investment of Rs.750,000.Find the profit of each if there shares are in the ratio 2:3:5

Solution : Total investment = 750,000

$$\begin{aligned}\text{Total Profit} &= 15\% \text{ of } 750,000 \\ &= \frac{15}{100} \times 750,000 = 112500\end{aligned}$$

Ratio among Ali ,Daniyal and Abdullah = 2:3:5

$$\text{Sum of ratio} = 2+3+5 = 10$$

Now, Ali share in profit = $\frac{2}{10} \times 112500 = 22,500$

Daniyal share in profit = $\frac{3}{10} \times 112500 = 33,750$

Abdullah share in profit = $\frac{5}{10} \times 112500 = 56250$

Distribute Rs.720 as profit amongst three people
, so that their shares are in the ratio 3:4:5

Solution : Total profit = 720

Let A ,B,C be three people,

Now $A : B : C = 3 : 4 : 5$

sum of ratio = $3 + 4 + 5 = 12$

A,s share in Profit = $720 \times \frac{3}{12} = 180$

B,s share in profit = $720 \times \frac{4}{12} = 240$

C,s share in profit = $720 \times \frac{5}{12} = 300$

Q :4 Three persons invested an amount of Rs.3,000,000 in a business with share ratio 2:3:7.They earned a profit of Rs.600,000 if they are interested to wind up their business, what amount every share holder would get?

Solution: Total profit = 600,000

Let A,B,C be three persons

Now A:B:C = 2:3:7

sum of ratio = $2+3+7 = 12$

A,s share in profit = $600,000 \times \frac{2}{12} = 100,000$

B,s share in profit = $600,000 \times \frac{3}{12} = 150,000$

C ,s share in profit = $600,000 \times \frac{7}{12} = 350,000$

Q:6 A sum of money is divided among three persons, A, B, C in the ratio 10:7:5 if B gets Rs.14 more than C. How much will A get and what is the total sum of money ?

Solution: Let sum of money = x

Given ratio among A,B,C = 10 :7:5

Sum of ratio = 10 +7 +5 =22

Now share of A in a profit = =

share of B in profit = =

share of c in ratio = =

Now $B - C = - = =$

since B get 14 more then C i.e $B = C+14$

OR $B - C = 14$

= 14 or

Now A share,s in profit = = = 70

Closure : what will
be the share of
widow when there
is no child ?

Home work : question number 5

exercise 3.3

Review Exercise-3

- Q :3 A shopkeeper gains a profit of 8% by selling a washing machine for Rs.12000.If he sells it for Rs.10500.Find his loss percentage.
- Solution : Given data profit =8%
- SP = 12000
- CP = ?
- we know that SP = CP (1- profit%)
- 12000 = CP (1 – 8%)
- 12000 = CP (1- 0.08)
- 12000 = CP (1 + 0.08)
- 12000 = CP (1.08)
- = CP
- 11111 = CP

Solution :4 $MP = x$

Discount = 10 % of MP

$SP = MP - \text{Discount}$

$= x - 10\% \text{ of } x$

$= x - x$

$= x - 0.1x$

$= 0.9x$

Also Profit = 5%

$CP = ?$

$SP = CP (1 + \text{Profit } \%)$

$0.9x = cp (1 + 5\%)$

$0.9x = CP (1 + 5/100)$

$0.9X = CP (1 + .05)$

$0.9X = CP (1.05)$

$= CP$

$$0.857X = CP$$

Since $SP = MP$ (given) Profit = ?

$$SP = MP = x$$

$$SP = CP (1 + \text{Profit}\%)$$

$$x = 0.857x (1 + \text{Profit} \%)$$

$$= 1 + \text{Profit} \%$$

$$= 1 + \text{Profit} \%$$

$$1.1668 = 1 + \text{Profit} \%$$

$$1.1668 - 1 = \text{Profit} \%$$

$$0.1668 =$$

$$0.1668 \times 100 = \text{Profit}$$

$$16.6 = \text{Profit}$$

$$16.6\% = \text{Profit} \% \text{ ans}$$

Q:5 Distribute Rs.33000 as a profit in a business regarding three persons, if their shares are in the ratio 3:5:3

Solution : Total profit = 33,000

Let A,B,C be three persons

Ratio among A:B:C = $3+5+3 = 11$

now A's share in profit = $33,000 \times \frac{3}{11} = 9000$

B's share in profit = $33,000 \times \frac{5}{11} = 15000$

C's share in profit = $33,000 \times \frac{3}{11} = 9000$

Q :6 Three members of a firm divide the profit amounting Rs.1,44,000 among themselves in the ratio 3:4:5

(i)What is the biggest share of the profit?

(ii)What is the smallest share of the profit?

Solution : Total profit = 1,44,000

Let A,B,C be three members of a firm

Ratio among A:B:C = 3:4:5

Sum of ratios = $3+4+5 = 12$

now A ,s share in profit = $1,44,000 \times \frac{3}{12} = 36000$

B ,s share in profit = $1,44,000 \times \frac{4}{12} = 48000$

C,s share in profit = $1,44,000 \times \frac{5}{12} = 60000$

(i) C is the biggest shares of the profit

(ii) A is the smallest share of the profit

Profit =8%

SP =12000

CP =?

SP =CP (1+Profit)

12000 =CP(1+8/100)

12000 =CP (1+0.08)

12000 =CP (1.08)

12000/1.08 =CP

11111 = CP

SP =10500 ,CP = 11111 , Loss% =?

SP =CP (1-Loss %)

10500 =11111 (1-Loss%)

10500/11111 = 1-Loss %

0.945 = 1-LOSS%

0.945-1 =-Loss%

-0.0549 = -Loss%

0.0549 = Loss|100

0.0549x100 =Loss

5.5 = Loss

5.5 % = loss %

- The whole chapter number 3 is revision in homework as we have completed it today.

Homework

Engaging starter :

Q: calculate ushr on a rice crop amounting Rs.4,90,000 produced by artificial resources (time 4 minutes)

Objectives :

At the end of today topic students will be able to :

- (i) Know the ratio of shares among legal inheritors of a property.
- (ii) Calculate amount of share of each legal inheritor of a property.

Q : 11 : Asghar left a property of worth Rs.4,80,000.he left behind a widow, three sons and four daughters. Calculate the share of each one.

Ans : Amount of property = 4,80,000

Share of widow =

Amount of widow = $\frac{1}{8} \times 4,80,000 = 60,000$

Remaining amount = $4,80,000 - 60,000 = 420,000$

Ratio of sons and daughters = 2:2:2:1:1:1:1

Sum of ratio = $2+2+2+1+1+1+1 = 10$

Share of each son = $\frac{2}{10} \times 420,000 = 84,000$

Share of each daughter = $\frac{1}{10} \times 420,000 = 42,000$

Najeeb left a wealth amounting to Rs. 400000/=. He left behind a widow while they did not have any child. Find the share of Najeeb's widow.

Total amount = 400000

Share of widow = $\frac{1}{4}$ (when no kid)

Amount of widow = $\frac{1}{4} \times 400000 = 100000$

Total amount of property = 45,00,000

Share of widow = $\frac{1}{8}$

Amount of widow = $\frac{1}{8} \times 45,00,000$
= 562,500

Remaining Amount = $45,00,000 - 562,500 =$
393,7500

Ratio of sons = 2:2

Sum of ratio = $2 + 2 = 4$

Share of each son = $\frac{2}{4} \times 393,7500 = 1968750$
ans

Total Amount left =15,00,000

Share of widow =1/4 (when no kids)

Amount of widow = $\frac{1}{4} \times 15,00,000 = 375,000$
ans

- Question no. 6 page no. 41

Homework.....