Excercise 3.1

1. Find the SP, when

(i)	CP = Rs. 950	Profit	=	10%
(ii)	CP = Rs. 1540	Loss	=	5%
(iii)	CP = Rs. 9600	Profit	=	10%
(iv)	CP = Rs. 1,26,000	Loss	=	5%
(v)	CP = Rs. 480	Profit	=	3%
(vi)	CP = Rs. 760	Loss	=	4%

Solution 1(i)

Cost price = Rs. 950

Profit = 10%

Let Cost price = Rs. 100

Profit = 10%

Sale price = Cost price + Profit

Cost price = 100 + 10

Cost price = 110

If cost price is Rs.100 then S.P = Rs. 110

If C.P is Rs.1 then S.P = $\frac{110}{100}$

$= \text{Rs. } \frac{11}{10}$

Now If C.P is Rs.950 then S.P = $\frac{11}{10} \times 950$

= Rs. 1045

Solution: 1 (ii)

C.P = Rs. 1540

Loss = 5%

Loss = 5%

S.P = C.P - Loss

= 100 - 5

= Rs. 95

If C.P is Rs.100 then S.P is = Rs. 95

If C.P is Re.1 then S.P is = Rs. $\frac{95}{100} = \frac{19}{20}$

If C.P is Rs.1540 then S.P is = $\frac{19}{20} \times 1540$

= Rs. 1463

Solution: 1 (iii)

C.P = Rs. 9600

Profit = 10%

Let C.P = Rs. 100

Profit = 10%

S.P = Cost price + Profit

= 100 + 10

= Rs. 110

Now If C.P is Rs,100 then S.P = Rs. 110

If C.P is Re. 1 then S.P = $\frac{110}{100}$

= Rs. $\frac{11}{10}$

If C.P is Rs 9600 then S.P = $\frac{11}{10} \times 9600$

= Rs. 10560

Solution: 1 (iv)

C.P = Rs. 126000

Loss = 5%

Let C.P = Rs. 100

Loss = 5%

S.P = 100 - 5

= Rs. 95

Now

If C.P is Re. 1 then S.P = $\frac{95}{100}$

= Rs. $\frac{19}{20}$

If C.P is Rs.126000 then S.P = $\frac{19}{20} \times 126000$

= Rs. 119700

Solution: 1 (v)

C.P = Rs. 480

Profit = 3%

Let C.P = Rs. 100

Profit = 3%

S.P = 100 + 3

= Rs. 103

If C.P is Rs.100 then S.P = Rs. $\frac{103}{100}$

If C.P is Rs.480 then S.P = $\frac{103}{100} \times 480$

= Rs. 494

Solution: 1 (vi)

C.P = Rs. 760

Loss = 4%

Let C.P = Rs. 100

$$S.P = 100 - 4$$

Now $$= 96$$

If C.P is Rs.100 then S.P = Rs. 96

If C.P is Re.1 then S.P = Rs. $\frac{96}{100}$

If C.P is Rs.760 then S.P = $\frac{96}{100} \times 760$

$$S.P = Rs.\ 729$$

2. ***Haris purchased a car for Rs. 248000 and spent Rs. 12000 on its denting and painting. He sold that at a profit of 5%. What did the customer pay to Haris?***

Solution:

C.P of a car = Rs. 2,48,000

Rs. spent on denting painting of a car = Rs. 12000

Total cost on car = 2,48,000+12000

= Rs. 2,60,000

Profit = 5%

Let C.P = Rs. 100

Profit = 5%

S.P = 100 + 5

If cost is 100 then S.P = Rs. 105

If cost is Re. 1 then S.P = $\frac{105}{100}$

= Rs. $\frac{21}{}$

If cost is Rs. 2,60,000 then S.P $= \frac{21}{20} \times 2,60,000$

$=$ Rs. 2,73,000

Hence S.P = Rs. 2,73,000

3. ***Find the CP, when***

(i)	S.P = Rs. 672	Profit	= 5%
(ii)	S.P = Rs. 851	Loss	= 8%
(iii)	S.P = Rs. 1755	Profit	$= 12\frac{1}{2}\%$
(iv)	S.P = Rs. 2640	Loss	= 12%
(v)	S.P = Rs. 100	Profit	$= 33\frac{1}{2}\%$

Solution: 3 (i)

S.P = Rs. 672

Profit = 5%

C.P = ?

Let C.P = Rs. 100

Profit = 5%

Therefore S.P = 100 + 5

Now = Rs. 105

If S.P is Rs.105 then C.P = Rs. 100

If S.P is Re.1 then C.P = Rs. $\frac{100}{105}$

If S.P is Rs.672 then C.P $= \frac{100}{105} \times 672$

C.P = Rs. 640

Solution: 3 (ii)

S.P = Rs. 851

Loss = 8%

C.P = ?

Let C.P = Rs. 100

Loss = 8%

S.P = 100 - 8

= Rs. 92

Now If S.P is Rs. 92 then C.P = Rs. 100

If S.P is Re.1 then C.P = Rs. $\frac{100}{92}$

If S.P is Rs.851 then C.P = $\frac{100}{92} \times 851$

Hence = Rs. 925

C.P = Rs. 925

3 (iii)

S.P = Rs. 1755

Profit = $12\frac{1}{2}\%$

C.P = ?

Let C. P = Rs. 100

Profit = Rs. $12\frac{1}{2}$

S.P = $100 + 12\frac{1}{2}$

= $112\frac{1}{2}$

= Rs. $\frac{225}{2}$

If S.P is Rs. $\frac{225}{2}$ then C.P = Rs. 100

If S.P is Re.1 then C.P = Rs. $\frac{100}{225} \times 2 = \frac{8}{9}$.

If S.P is Rs.1755 then C.P = $\frac{8}{9} \times 1755$

= Rs. 1560

C.P = Rs. 1560

Solution: 3 (iv)

S.P = Rs. 2640

Loss = 12%

C.P = ?

Let C.P = Rs. 100

Loss = 12%

Therefore S.P = 100 - 12

= Rs. 88

If S.P is Rs.88 then C.P = Rs. 100

If S.P is Re.1 then C.P = Rs. $\frac{100}{88}$

If S.P is Rs.2640 then C.P = $\frac{100}{88} \times 2640$

= Rs. 3000

Hence C.P = Rs. 3000

Solution: 3 (v)

S.P = Rs. 100

Profit = $33\frac{1}{3}\%$

C.P = ?

Let C.P = Rs. 100

Profit = $33\frac{1}{3}\%$

Therefore S.P = $100 + 33\frac{1}{3}$

$$= 133\frac{1}{3}$$

$$= \text{Rs. } \frac{400}{3}$$

If S.P is Rs. $\frac{400}{3}$ then C.P = Rs. 100

If S.P is Re. 1 then C.P = $\frac{100}{400} \times 3$

$$= \text{Rs. } \frac{3}{4}$$

If S.P is Rs.100 then C.P = $\frac{3}{4} \times 100$

$$= \text{Rs. } 75$$

Hence C.P = Rs. 75

4. ***A shop-keeper gains a profit of 7% by selling a dinner set for Rs. 3852. If he sells it for Rs. 4050, find his profit percentage.***

Solution:

1st condition

S.P = Rs. 3852

Profit = 7%

C.P = ?

Let C.P = Rs. 100

Profit = 7%

Hence S.P = 100 + 7

= Rs. 107

If S.P is Rs.107 then C.P = Rs. 100

If S.P is Re.1 then C.P = $\text{Rs. } \frac{100}{107}$

$$\text{If S.P is Rs.3852 then C.P} = \frac{100}{107} \times 3852$$

$$\text{C.P} = \text{Rs. } 3600$$

2nd condition

$$\text{C.P is} = \text{Rs. } 3600$$

$$\text{S.P} = \text{Rs. } 4050$$

$$\text{Cost price of a profit on Rs.3600} = 4050 - 3600$$

$$= \text{Rs. } 450$$

$$\text{Profit on Re. 1} = \text{Rs. } \frac{450}{3600}$$

$$\text{Profit on Rs. 100} = \frac{450}{3600} \times 100$$

$$= \frac{25}{2}\%$$

$$\text{Profit \%} = 12\frac{1}{2}\%$$

5. The selling price of 12 articles is equal to the cost price of 15 articles. Find profit percentage.

Solution:

Let

$$\text{C.P of 15 articles} = \text{Rs. } 100$$

$$\text{S.P of 12 articles} = \text{Rs. } 100$$

Now we find the S.P of 15 articles.

$$\text{S.P of 12 articles} = \text{Rs. } 100$$

$$\text{S.P of 1 articles} = \text{Rs. } \frac{100}{12}$$

$$\text{S.P of 15 articles} = \frac{100}{12} \times 15$$

$$= \text{Rs. } 125$$

$$\text{Profit} = \text{S.P} - \text{C.P}$$

$$= 125 - 100$$
$$= \text{Rs. } 25$$

Therefore Profit % $= 25\%$

6. ***Find the cost price, if a fan is sold for Rs. 1470, to get a profit*** $\frac{1}{6}th$ ***of its cost price.***

Solution:

Let

$$\text{C.P} = \text{Rs. } 100$$

$$\text{Profit} = \frac{1}{6} \times 100$$

$$= \frac{100}{6}$$

Therefore $$\text{S.P} = 100 + \frac{100}{6}$$

$$= \text{Rs. } \frac{700}{6}$$

Now

If S.P is Rs. $\frac{700}{6}$ then C.P $= \text{Rs. } 100$

If S.P is Re. 1 then $\text{C.P} = \frac{100}{700} \times 6$

$$= \text{Rs. } \frac{6}{7}$$

If S.P is Rs. 1470 then $\text{C.P} = \frac{6}{7} \times 1470$

$$= 6 \times 210$$

C.P = Rs. 1260

7. ***A man sold an almirah at a profit of $7\frac{1}{2}\%$, had he sold it for Rs. 209, he would have lost 2%. For how much the man purchased it?***

Solution:

$$\text{S.P} = \text{Rs. } 209$$
$$\text{Loss} = 2\%$$

Now Let $\text{S.P} = \text{Rs. } 100$

Therefore $\text{S.P} = 100 - 2$

$= \text{Rs. } 98$

If S.P is Rs. 98 then $\text{C.P} = \text{Rs. } 100$

If S.P is Re. 1 then $\text{C.P} = \text{Rs. } \frac{100}{98}$

If S.P is Rs. 209 then $\text{C.P} = \frac{100}{98} \times 209$

$= \text{Rs. } 213.3$

$\textbf{C.P} = \textbf{Rs. 213}$

8. ***Three chairs are purchased at Rs. 450 each. One of these is sold at a loss of 10%. At what price should the other two be sold so as to gain 20% on the whole transaction?***

Solution:

Cost price of 1 chair = Rs. 450

Cost price of 3 chairs $= 450 \times 3$

1st condition = Rs. 1350

Total cost price = Rs. 1350

C.P of 1 chair = Rs. 450

Loss = 10%

Now S.P = 100-10=Rs. 90

If C.P is Rs.100 then S.P = Rs. 90

If C.P is Re.1 then S.P $= \frac{90}{100} = \frac{9}{10}$

If C.P is Rs.450 then S.P

$$= \frac{9}{\cancel{10}} \times \cancel{450}^{\cancel{45}\cancel{90}}$$

$$= \text{Rs. } 405$$

2nd condition

S.P of 1st (one) chair = Rs. 405

C.P of three chairs = Rs. 1350

Let C.P = Rs. 100

Profit = 20%

S.P = 100 + 20

Now = Rs. 120

If C.P is Rs.100 then S.P = Rs. 120

If C.P is Re.1 then S.P $= \frac{120}{100}$

If C.P is Rs.1350 then S.P $= \frac{120}{100} \times 1350$

$$= \text{Rs. } 1620$$

Required S.P = Rs. 1620

Price of 1st chair = Rs. 405

Now required S.P = 1620 - 405

Required S.P = Rs. 1215

Exercise 3.2

1. ***Find the selling price, when,***

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

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

(iii) MP = Rs. 395.75, Discount = 8%

Solution: 1 (i)

MP = Rs. 728

Discount = 6%

Let M.P = Rs. 100

Discount = 6%

S.P = 100 - 6

= Rs. 94

Now if MP is Rs.100 then S.P = Rs. 94

If MP is Re.1 then S.P = Rs. $\frac{94}{100}$

If MP is Rs.728 then S.P = $\frac{94}{100} \times 728$

Hence S.P = Rs. 684.32

= Rs. 684.32

Solution: 1 (ii)

MP = Rs. 2760

Discount = 5%

Let M.P = Rs. 100

= 5%

Discount = 100 - 5

If MP is Rs.100 then S.P = Rs. 95

If MP is Re.1 then S.P = $\frac{95}{100}$

If MP is Rs.2760 then S.P $= \frac{95}{100} \times 2760$

$= \text{Rs. } 2622$

Hence S.P $= \text{Rs. } 2622$

Solution: 1 (iii)

M.P $= \text{Rs. } 395.75$

Discount $= 8\%$

Let MP $= \text{Rs. } 100$

Discount $= 8\%$

S.P $= 100 - 8$

If MP is Rs.100 then S.P $= \text{Rs. } 92$

If MP is Re.1 then S.P $= \text{Rs. } \frac{92}{100}$

If MP is Rs.395.75 then S.P $= \frac{92}{100} \times 395.75$

$= \frac{92}{100} \times \frac{39575}{100}$

$= \frac{3640900}{10000}$

Hence S.P $= \text{Rs. } 364.09$

$= \text{Rs. } 364.09$

2. Find the marked price when,

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

(ii) SP = Rs. 858, Discount = 12%

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

Solution: 2 (i)

S.P $= \text{Rs. } 515.20$

Discount $= 8\%$

MP $= ?$

Let MP $= \text{Rs. } 100$

$$= \frac{8}{100} \times 100$$

$$= \text{Rs. } 8$$

Therefore $S.P = 100 - 8$

Now $= \text{Rs. } 92$

If S.P is Rs.92 then MP $= \text{Rs. } 100$

If S.P is Re.1 then MP $= \text{Rs. } \frac{100}{92}$

If S.P is Rs.515.20 then MP $= \frac{100}{92} \times 515.20$

$$= \frac{100}{92} \times \frac{51520}{100}$$

$$= \frac{51520}{92}$$

$$= \text{Rs. } 560$$

Hence $MP = \text{Rs. } 560$

Solution: 2 (ii)

$S.P = \text{Rs. } 858$

$\text{Discount} = 12\%$

$MP = ?$

Let $MP \text{ is} = \text{Rs. } 100$

$\text{Discount} = 12\%$

$$= \frac{12}{100} \times 100$$

$$= \text{Rs. } 12$$

$S.P = 100 - 12$

$= \text{Rs. } 88$

If S.P is Rs. 88 then MP $= \text{Rs. } 100$

If S.P is Re. 1 then MP $= \text{Rs. } \frac{100}{88}$

If S.P is Rs. 858 then MP $= \frac{100}{88} \times 858$

$= Rs. 975$

Hence MP is $= Rs. 975$

Solution: 2 (iii)

S.P $= Rs. 2400$

Discount $= 4\%$

MP $= ?$

Let MP is $= Rs. 100$

Discount $= 4\%$

$= \frac{4}{100} \times 100$

$= Rs. 4$

S.P $= 100 - 4$

$= Rs. 96$

If S.P is Rs.96 then MP $= Rs. 100$

If S.P is Rs.1 then MP $= Rs. \frac{100}{96}$

If S.P is Rs.2400 then MP $= \frac{100}{96} \times 2400$

$= Rs. 2500$

Hence MP $= Rs. 2500$

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

Solution:

MP $= Rs. 720$

S.P $= Rs. 684$

Discount % $= ?$

Discount of Rs. 720 $= 720 - 684$

$= Rs.36$

$$\text{Discount of Re.1} = \text{Rs.}\ \frac{36}{720}$$

$$\text{Discount \%} = \frac{36}{720} \times 100$$

$$= 5$$

Hence $= 5\%$

4. ***The marked price of washing machine is Rs. 3640. During sale season it is sold for Rs. 3367. What percent sale discount is being given?***

Solution:

$$\text{MP} = \text{Rs. } 3640$$

$$\text{SP} = \text{Rs. } 3367$$

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

$$\text{Discount of Rs. } 3640 = 3640 - 3367$$

$$= \text{Rs.}273$$

$$\text{Discount of Re.1} = \text{Rs.}\ \frac{273}{3640}$$

$$\text{Discount of Rs. } 100 = \frac{273}{3640} \times 100$$

$$= \frac{15}{2}$$

$$= 7.5$$

Hence Discount percent $= 7.5\%$

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:

$$\text{MP} = \text{Rs. } 480$$

$$\text{Discount percent} = 10\%$$

Let Marked price = Rs. 100

Discount = 10%

$$= \frac{10}{100} \times 100$$

= Rs. 10

S.P = 100 - 10

= Rs. 90

Now

If MP is Rs.100 its S.P = Rs. 90

If MP is Re.1 its S.P = Rs. $\frac{90}{100}$

If MP is Rs.480 its S.P = $\frac{90}{100} \times 480$

= Rs. 432

S.P = Rs. 432

2nd condition

S.P = Rs. 432

Profit = 8%

C.P = ?

Let C.P = Rs. 100

Profit = 8%

Profit = $\frac{8}{100} \times 100$

= Rs. 8

S.P = 100 + 8

= Rs. 108

Now

If S.P is Rs.108 its C.P = Rs. 100

If S.P is Re.1 its C.P = Rs. $\frac{100}{108}$

If S.P is Rs.432 its C.P = $\frac{100}{108} \times 432$

$= \text{Rs. } 400$

Hence C.P of a book $= \text{Rs. } 400$

6. ***A trader marks his goods in such a way that after allowing a discount of 10%, he gains 15%. If an article costs him Rs. 720, what is its marked price?***

Let MP of goods = Rs. 100

Discount = 10%

S.P = M.P - Discount

= Rs. (100 - 10)

= Rs. 90

If S.P is Rs.90 its MP = Rs. 100

If S.P is Re.1 its MP = Rs. $\frac{100}{90}$

If S.P is Rs.720 its MP = $\frac{100}{\cancel{90}} \times \frac{8}{\cancel{720}}$

$= \text{Rs. } 800$

Profit percentage = $\frac{15}{100} \times 800$

$= 15 \times 8$

$= \text{Rs. } 120$

Marked price = Rs. 800+120=920

7. ***The list price of a T.V 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:

1st condition

MP = Rs. 12600

Discount percent = 5%

S.P = ?

Let MP = Rs. 100

Discount percent = 5%

$$\text{Discount} = \frac{5}{100} \times 100$$

$$= \text{Rs. } 5$$

$$\text{S.P} = 100 - 5$$

$$= \text{Rs. } 95$$

Now

If M.P is Rs. 100 its S.P = Rs. 95

If M.P is Re. 1 its S.P = Rs. $\frac{95}{100}$

$$\text{If M.P is Rs. 12600 its S.P} = \frac{95}{100} \times 12600$$

$$\text{S.P} = \text{Rs. } 11970$$

Now in condition of cash payment S.P is Rs. 11970 and extra two percent discount is given. In this condition Rs.11970 is consider marked price, find sale price OR customer's cost price.

2nd Condition:

Sale price = 11970

Discount = 2%

S.P Or Costumer's C.P = ?

Let M.P is = Rs. 100

Discount = 2%

$$= \frac{2}{100} \times 100$$

$$= \text{Rs. } 2$$

(2nd condition) S.P = 100 - 2

$$= \text{Rs. } 98$$

If MP is Rs.100 its S.P = Rs. 98

$$\text{If MP is Rs.1 its S.P} = \text{Rs. } \frac{98}{100}$$

$$\text{If MP is Rs.11970 its S.P} = \frac{98}{100} \times 11970$$

$$= \text{Rs. } 11730.6$$

$$\text{Customer's requirement} = \text{Rs. } 11730.6$$

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:

$$\text{MP} = \text{Rs. } 100$$

$$\text{Discount} = 15\%$$

$$= \frac{15}{100} \times 100$$

$$= \text{Rs. } 15$$

$$\text{S.P} = 100 - 15$$

$$= \text{Rs. } 85$$

$$= 15 + 2$$

$$\text{Total profit on Rs.85} = 17\%$$

$$\text{Total profit on Rs.100} = \frac{17}{100} \times 100$$

$$= \text{Rs. } 17$$

$$\text{Total profit in S.P of Rs. } 100 = \frac{17}{85} \times 100$$

$$= \text{Rs. } 20$$

$$\text{Profit percentage} = 20\%$$

Exercise 3.3

1. ***Distribute Rs. 200,000 as a profit in a business regarding three persons, if their shares are in the ratio 3:2:5.***

Solution:

Total amount in Profit = 2,00,000

Ratio b/t business men = 3 : 2 : 5

sum of ratio = 3 + 2 + 5

= 10

$$\text{Profit of one person} = \frac{3}{10} \times 2,00,000$$

= Rs. 60,000 (i)

$$\text{Profit of 2nd person} = \frac{2}{10} \times 2,00,000$$

= Rs. 40,000 (ii)

$$\text{Profit of 3rd person} = \frac{5}{10} \times 2,00,000$$

= Rs. 10,00,000 (iii)

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

Solution:

Amount in investment = Rs. 7,50,000

Profit = 15%

Now profit in investment of Rs. 100 = Rs. 15

$$\text{Profit in investment of Re.1} = \text{Rs. } \frac{15}{100}$$

Profit of investment on Rs.7,50,000 $= \frac{15}{100} \times 7,50,000$

$= \text{Rs. } 112500$

Ratio between Ali's Daniyal and Abdullah's share $= 2 : 3 : 5$

Sum of the ratio $= 2 + 3 + 5$

$= 10$

Ali's share in profit $= \frac{2}{10} \times 112500$

$= \text{Rs. } 22,500$

Daniyal's share in profit $= \frac{3}{10} \times 112500$

$= \text{Rs. } 33,750$

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

$= \text{Rs. } 56,250$

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

Solution:

Amount of profit $= \text{Rs. } 720$

sum of ratio $= 3 : 4 : 5$

$= 3 + 4 + 5$

$= 12$

1st person's share in profit $= \frac{3}{12} \times 720$

$= \text{Rs. } 180$ (i)

2nd person's share in profit $= \frac{4}{12} \times 720$

$= \text{Rs. } 240$ (ii)

$$= \frac{5}{12} \times 720$$

$$= \text{Rs. } 300 \qquad \text{(iii)}$$

4. ***Three persons invested an amount of Rs. 30,00,000 in a business with shares 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:

1st part

$$\text{amount of investment} = 30{,}00{,}000$$

$$\text{Ratio} = 2 : 3 : 7$$

$$\text{sum of ratio} = 2 + 3 + 7$$

$$= 12$$

$$\text{1st investment} = \frac{2}{12} \times 30{,}00{,}000$$

$$= \text{Rs. } 5{,}00{,}000$$

$$\text{2nd investment} = \frac{3}{12} \times 30{,}00{,}000$$

$$= \text{Rs. } 7{,}50{,}000$$

$$\text{3rd investment} = \frac{7}{12} \times 30{,}00{,}000$$

$$= \text{Rs. } 17{,}50{,}000$$

2nd part

$$\text{total amount of profit} = \text{Rs. } 6{,}00{,}000$$

$$\text{Ratio} = 2 : 3 : 7$$

$$\text{sum of the ratio} = 2 + 3 + 7$$

$$= 12$$

$$\text{profit of the 1st share holder} = \frac{2}{12} \times 6{,}00{,}000$$

$$= \text{Rs. } 1{,}00{,}000$$

profit of the 2nd share holder $= \frac{3}{12} \times 6,00,000$

$= \text{Rs. } 1,50,000$

Profit of the 3rd share holder $= \frac{7}{12} \times 6,00,000$

$= \text{Rs. } 3,50,000$

	1st	*2nd*	*3rd*
Cost in Profit	1,00,000	1,50,000	3,50,000
Cost in investment	+ 5,00,000	+ 750,000	+ 17.50,000
Total amount =	6,00,000	9,00,000	21,00,000

5. ***Three members of a firm divide the profit Rs. 67,200 among themselves in the ratio 2:3:7. What is the biggest share of the profit?***

Solution:

Profit $= \text{Rs. } 67,200$

Ratio in the shares $= 2 : 3 : 7$

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

$=$

Share of 1st person $= \frac{2}{12} \times 67,200$

$= \text{Rs. } 11,200$

Share of 2nd person $= \frac{3}{12} \times 67,200$

$= \text{Rs. } 16,800$

Share of 3rd person $= \frac{7}{12} \times 67,200$

$= \text{Rs. } 39,200$

6. ***A sum of money is divided among three persons, A,B and 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 full amount = Rs. x

Ratio among A,B,C share = 10 : 7 : 5

Sum of ratio = 10 + 7 + 5

= 22

$$\text{Share of A} = \frac{10}{22}x$$

$$\text{Share of B} = \frac{7}{22}x$$

$$\text{Share of C} = \frac{5}{22}x$$

Now Share of B - Share of C $= \frac{7}{22}x - \frac{5}{22}x$

$$= \frac{2x}{22}$$

Now according to given condition

$$\frac{2x}{22} = 14$$

$$x = 14 \times \frac{22}{2}$$

Hence full amount = 154

$$\text{Share of A} = \frac{10}{22}x$$

$$\text{Share of A} = \frac{10}{22} \times 154$$