Pakistan School
Kingdom of Bahrain

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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- Discount %)

= 728 (1 – 6%)

= 728 (1- 6/100)

= 728 (1-0.06)

= 728 (0.94)

= 684.32 ans

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

Solution : SP =MP (1- Discount %)

= 2760 (1- 5%)

= 2760 (1- 5/100)

= 2760 (1- 0.05)

= 2760 (0.95)

= 2622 ans

Q:2 Find the marked price ,when,

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

Solution = we know that

SP = MP (1- 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 ans = MP

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

Solution : we know that

SP = MP (1- Discount %)

2400 = MP (1- 4/100)

2400 = MP (1-0.04)

2400 = MP (0.96)

2400/0.96 = MP

2500 ans = MP

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

Solution : Give data MP of celling fan = 720

SP of celling fan = 684

Discount % = ?

we know that SP = MP (1- Discount %)

684 = 720 (1- discount %)

684/720 = (1 – discount %)

0.95 = (1 – discount %)

0.95 -1 = - discount %

- 0.05 = - discount %

0.05 = discount /100

0.05 x100 =discount

5 = discount

5 % = 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 – Discount %)

= 480 (1- 10/100)

= 480 (1-0.1)

= 480 (0.9)

= 432

Now SP = 432 . Profit (gains) 8%

SP = CP (1 + Profit (gains) %)

432 = CP (1+ 8/100)

432 = CP (1 + 0.08)

432 = CP (1.08)

432/1.08 = CP

400 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

list price (MP) = 12600

Discount = 5%

SP = ?

We know that SP = MP (1 – discount %)

$$= 12600 (1 - 5\%)$$

$$= 12600 (1 - 5/100)$$

$$= 12600 (1 - 0.05)$$

$$= 12600 (0.95)$$

$$= 11970$$

Now again discount = 2 %

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

MP = 11970

SP = MP (1 – discount %)

= 11970 (1 – 2%)

= 11970 (1 – 2/100)

= 11970 (1- 0.02)

= 11970 (0.98)

= 11730.6 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 – Discount

=

=

= ____________________1

Profit = 2%

CP = ?

Profit = Profit % xcp

= 2% CP

= 0.02 CP

Now CP = SP – Profit

= 0.85x – 0.02cp

CP + 0.02CP = 0.85 X

CP (1+.02) = 0.85X

Now CP = = 0.833

Profit = SP – CP

=

=

= 0.167

Profit % = (x100)%

=(100)%

= 20% 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 = 200,00x 3/10 =600,00

B ,s share in profit = 200,000x2/10= 400,00

c,s share in profit = 200,000x5/10 = 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

Total Profit = 15% of 750,000

= x750,000 = 112500

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

Sum of ratio = 2+3+5 = 10

Now, Ali share in profit = 112500x =22,500

Daniyal share in profit = 112500x=33,750

Abdullah share in profit = 112500x = 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 x = 180

B,s share in profit = 720 x = 240

C,s share in profit = 720x =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 x = 100,000

B,s share in profit = 600,000 x = 150,000

C ,s share in profit = 600,000 x = 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 – Discount

= x - 10%of x

= x - x

= x – 0.1x

= 0.9x

Also Profit = 5%

CP = ?

SP = CP (1 +Profit %)

0.9x = cp (1 +5%)

0.9x = CP (1+5/100)

0.9 X = CP (1 +.05)

0.9X = CP (1.05)

= CP

$0.857X = CP$

Since SP =MP (given) Profit = ?

SP =MP =x

SP = CP (1+Profit%)

$x = 0.857x$ (1+Profit %)

= 1 +Profit %

= 1 +Profit %

1.1668 = 1+ Profit %

1.1668 -1 = Profit %

0.1668 =

0.1668x100 = Profit

16.6 = Profit

16.6% = Profit % ans

Q:5 Distribute Rs.33000 as a profit in a business regarding three persons, if there 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 = 33,000x = 9000

B ,s share in profit = 33,000 x = 15000

C,s shsre in profit = 33,000 x = 9000

Q :6 Three members of a firm divide the profit amounting Rs.1,44,000 among them selves 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 x = 36000

B ,s share in profit = 1,44,000 x = 48000

C,s share in profit = 1,44,000 x = 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 = Lossl100
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 artifical 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 = x 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 = x 420,000 = 84,000

Share of each daughter = x 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 =1/4 (when no kid)

Amount of widow = ¼ x400000 =100000

Total amount of property =45,00,000

Share of widow =1/8

Amount of widow =1/8 x45,00,000

=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 = 2/4 x393,7500 = 1968750 ans

Total Amount left =15,00,000

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

Amount of widow = ¼ x15,00,000 =375,000 ans

- Question no. 6 page no. 41

Homework…..