Shares and Dividends

Q1. Find the dividend received on 60 shares of Rs. 20 each if 9% divided is declared.

Sol.

Value of one share = Rs. 20.

∴ Value of 60 shares = Rs. 20 × 60 = Rs. 1200.

Rate of dividend = 9%

∴ Total dividend = Rs. 1200 × 9% = $1200 \times \dfrac{9}{100}$ = 108.

Q2. A company declares 8% dividend to the share holders. If a man receives Rs. 2840 as his divided, find the nominal value of his shares.

Sol.

Rate of dividend = 8%

Amount of dividend = Rs. 2840.

Nominal value of shares = $\dfrac{2840 \times 100}{8}$ = Rs. 35500.

Q3. A man bought 500 shares; each of face value Rs. 10, of a certain business concern and during the first year after purchased received Rs. 400 as dividend as his shares. find the rate of divideud on shares.

Sol.

Amount of 500 shares at the rate of Rs. 10 each

= Rs. 10 × 500 = Rs. 5000.

Amount of divideud = 400

∴ Rate of divideud = $\dfrac{400 \times 100}{5000}$ = 8%.

Q4. A man buys 200 ten rupees shares at Rs.12.50 each and receives a dividend of 8%. find the amount invested by him and the dividend received by him in cash.

Sol. Face value of 200 shares = Rs.10 × 200 = Rs 2000

(i) Amount invested for the purchase of 200 shares at the rate of Rs.12.50 each = 12.50 × 200 = Rs. 2500

Rate of dividend = 8%.

Total amount of dividend = $\frac{2000 \times 8}{100}$ = Rs.160.

Q5. Find the market price of 5% shares when a person gets a dividend of Rs.65 by investing Rs.1430.

Sol. Amount of dividend = Rs.65.

Rate of dividend = 5%.

Total face value = $\frac{65 \times 100}{5}$ = Rs.1300.

If face value is Rs.1300, then market value = Rs.1430.

and if face value is Rs.100, then market value

= $\frac{1430 \times 100}{1300}$ = Rs.110.

Q6. A man invests a sum of money in Rs.100 shares, paying 15% dividend quoted at 20% premium. if his annual dividend is Rs.540, calculate:

(i) his total investment.

(ii) the rate of return on his investment.

Sol. Face value of each share = Rs.100.

Market value of each share = Rs. 100 + Rs. 20 = Rs. 120.

Rate of dividend = 15%.

Total dividend = Rs. 540.

(i) Total investment = $\frac{540}{15} \times 100$ = Rs. 4320.

(ii) Rate of return on his investment of Rs. 4320

$= \frac{540 \times 100}{4320} = 12.5\%$

Q7. A man invests Rs. 1680 in buying shares of nominal value Rs. 24 and selling at 12% premium. The dividend on the shares is 15% per annum.

(i) Calculate the number of shares he buys.

(ii) Calculate the dividend he receives annually.

Sol. Investment = Rs. 1680.

Nominal value of each share = Rs. 24.

Market value of each share = $24 \times \frac{112}{100}$ = Rs. 26.88

Rate of dividend = 15%.

(i) Number of shares = $\frac{1680 \times 100}{2688}$ = 625.

Nominal value of 625 shares = 24 × 625 = 15000

(ii) Amount of dividend = $15000 \times \frac{15}{100}$ = Rs. 2250.

Q8. A lady holds 1800 : Rs. 100 shares of a company that pays 15% dividend annually. Calculate her annual dividend. If she had bought these shares at 40% premium, what percentage return does she get on her investment? Give your answer to the nearest integer.

Sol. Total no. of shares = 1800

Nominal value of each share = Rs. 100.

Rate of dividend = 15%

(i) Total face value of 1800 shares = Rs. 100 × 1800 = 180000

Total dividend = $180000 \times \dfrac{15}{100}$ = Rs. 27000.

(ii) Market value of each share = Rs. 100 + Rs. 40 = Rs. 140.

Total investment = Rs. 140 × 1800 = Rs. 252000.

percentage on his return) = $\dfrac{27000 \times 100}{252000}$ = 10.7 ≅ 11%

Q9. What sum should a person invest in Rs. 25 shares, selling at Rs. 36, to obtain income of Rs. 720. if the dividend declared is 12%? Also find.

(i) The number of shares bought by him.

(ii) The percentage return on his income.

Sol. Nominal value of each share = Rs. 25.

Market value of each share = Rs. 36.

Total income = Rs. 720.

Rate of dividend = 12%.

Total nominal value = $\dfrac{100}{12} \times 720$ = Rs. 6000

(i) Number of shares = $\dfrac{6000}{25}$ = 240.

Total investment = 240 × 36 = Rs. 8640.

(ii) percentage return = $\dfrac{720 \times 100}{8640}$

= $8\dfrac{1}{3}$%

Q10. A company declares semi-annual dividend of 6%. If Raman has 700 shares of nominal value Rs. 12.50 each. find his annual income.

Sol. Rate of semi-annual dividend = 6%.

annual rate = $6 \times 2 = 12\%$

No. of shares = 700.

and nominal value of each share = Rs. 12.50

Total nominal value = $12.50 \times 700 = $ Rs. 8750.

Total income = Rs. $\dfrac{8750 \times 12}{100}$ = Rs. 1050.

Q11. Ravi invested Rs. 6250 in shares of a company paying 6% per annum. If he bought Rs. 25 share for Rs. 31.25 each, find his annual income from his investment.

Sol. Investment = Rs. 6250

Rate of dividend = 6%.

Nominal value of each share = Rs. 25 and
market value of each share = Rs. 31.25

Total nominal value = $\dfrac{6250 \times 25}{31.25}$ = Rs. 5000

Total annual income = Rs. $\dfrac{5000 \times 6}{100}$ = Rs. 300

Q12. Mr. Tiwari invested Rs. 29040 in 15%. Rs. 100 shares at a premium of 20%. Calculate:
(i) The no. of shares bought by Mr. Tiwari
(ii) Mr. Tiwari's income form the investment.
(iii) The percentage return on his investment.

Sol.

Investment = Rs. 29040.

Nominal value of each share = Rs. 100.

Market value of each share = $100 \times \frac{120}{100}$ = Rs. 120.

rate of dividend = 15%.

(i) No. of shares = $\frac{29040}{120}$ = 242.

(ii) Tiwari income = 15 × 242 = 3630.

(iii) Total face value of 242 shares = 100 × 242 = 24200.

Total dividend = $24200 \times \frac{15}{100}$ = Rs. 3630

percentage return = $\frac{3630 \times 100}{29040}$ = 12.5%.

Q13 A man buys shares at the value of Rs. 10 yielding 8% dividend at the end of a year. find the no. of shares bought if he receives a dividend of Rs. 300.

Sol.

face value of each share = Rs. 10.

Rate of dividend = 8% P.a.

Total dividend = Rs. 300.

Total face value of shares = $\frac{300 \times 100}{8}$ = Rs. 3750.

and no. of shares = $\frac{3750}{10}$ = 375.

Q14 A man invests Rs. 8800 on buying shares of face value of Rs. 100 each at a premium of 10%. if he earns Rs. 1200 at the end of year as dividend, find :

(i) The no. of shares he has in the company.

(ii) The dividend due to him on these shares.

Sol. Investment = Rs. 8800.

Face value of each Share = Rs. 100.

and market value of each share = Rs. 100 + Rs. 10 = Rs. 110

Total income = Rs. 1200.

Total face value = $\frac{100}{5} \times 6.25 = \frac{100 \times 625}{5 \times 100} = 125$.

(i) no. of shares = $\frac{8000}{100} = 80$.

(ii) Rate of dividend = $\frac{1200 \times 100}{8000} = 15\%$

Q15. A man invested Rs. 45000 in 15% Rs 100 shares quoted at Rs. 125. when the market value of these shares rose to Rs. 140, he sold some shares, just enough to raise Rs. 8400. Calculate

(i) The no. of shares he still holds.

(ii) The dividend due to him on these shares.

Sol. Investment on shares = Rs. 45000

face value of each Share = Rs. 125.

Total no. of shares = $\frac{45000}{125} = 360$ Shares.

Income from sold shares = Rs. 8400.

No. of shares sold = $\frac{\text{Income from shares}}{\text{Market value of each share}} = \frac{8400}{140} = 60$.

∴ 60 shares were sold.

(i) No. of shares he still hold = Total no. of shares − Sold shares

= 360 − 60 = 300 shares.

∴ Number of Shares he still holds = 300.

(ii) Market Value of 300 shares = 300 × 140 = 42000

face value of 300 shares = 300 × 125 = 37500.

Difference = Market Value − face value

= 42000 − 37500

= Rs. 4500.

Q16. A company pays a dividend of 15% on its ten-rupee shares from which it deducts tax at the rate of 22%. Find the annual income of a man who owns on thousand shares of this company.

Sol.

No. of shares = 1000

Face value of each are = Rs. 10.

Rate of dividend = 15%

Rate of tax deducted = 22%

Total face value of 1000 shares = 10 × 1000 = Rs. 10,000

Total dividend = $10000 \times \frac{15}{100}$ = Rs. 1500

Tax deducted at the rate of 22% = $1500 \times \frac{22}{100}$ = Rs. 330.

Net annual income = 1500 − 330 = Rs. 1170

Q17. Arun owns 560 shares of a company. The face value of each share is Rs. 25. If the company declares a dividend of 9%.
Calculate (i) The dividend that arun will get.
(ii) The rate of interest, on his investment, if arun has paid Rs. 30 for each share.

Sol.

No. of shares = 560

Face value of each are = Rs. 25

Rate of dividend = 9% p.a.

Total face value of 560 shares = 25 × 560 = 14000

(i) Amount of dividend = $14000 \times \frac{9}{100}$ = Rs. 1260

(ii) Market Value of each share = Rs. 30.

Total investment = 30 × 560 = Rs. 16800

% of interest on his investment = $\frac{1260}{16800} \times 100 = 7.5\%$

Q18. A Company with 10000 shares of nominal value of Rs. 100 declares an annual dividend of 8% to the share holders.
(i) Calculate the total amount of dividend paid by the Company.
(ii) Ramesh bought 90 shares of the Company at Rs. 150 per share.

Sol.
No. of shares = 10000

face value of each share = 100

Rate of dividend = 8%

(i) Total face value of 10000 shares = 100 × 10000 = 1000000

Total amount of dividend = $1000000 \times \frac{8}{100}$ = Rs. 80000

(ii) No. of shares Ramesh have = 90

Market value of each share = Rs. 150

Dividend Ramesh received = Rs. 8 × 90 = Rs. 720.

let x be percentage return on his investment is given by

market value = $\frac{100}{x} \times 8$

$150 = \frac{100}{x} \times 8$

$\Rightarrow x = \frac{100}{150} \times 8 = \frac{16}{3} = 5\frac{1}{3}\%$

Q19. A company with 4000 shares of nominal value of Rs. 110 declares annual dividend of 15%. Calculate :
(i) The total amount of dividend paid by the Company.
(ii) The annual income of Shark who holds 88 shares in the Company.
(iii) If he received only 10% on his investment, find the price Shark paid for each share.

Sol.

No. of shares = 4000

face value of each share = Rs. 110

Rate of dividend = 15%

(i) total face value of 4000 shares = 4000 × 110 = Rs. 440000

total no. of dividend = 440000 × $\frac{15}{100}$ = Rs. 66000

(ii) Income of 88 shares = 88 × 15 = Rs. 1320

(iii) Rate of interest on investment = 10%

Market value of each share = $\frac{100}{10}$ × 15 = 150

Q20. By investing Rs. 7500 in a company paying 10% dividend, an income of Rs. 500 is received. what price is paid for each Rs. 100 Share ?

Sol.

Investment = Rs. 7500

Rate of dividend = 10%

Total income = Rs. 500

Face value of each share = Rs. 100

Total face value = $\frac{100}{10}$ × 500 = Rs. 5000

If face value is Rs. 5000, then investment = Rs. 7500.

and if face value is Rs. 100, then market value of each

Share = $\frac{7500 \times 100}{5000}$ = Rs. 150.

Q21. A man invests Rs. 8000 in a company paying 8% dividend, when a share of face value of Rs. 100 is selling at Rs. 60 premium.

(i) what is his annual income?

(ii) what percent does he get on his money ?

Sol.

Investment = Rs. 8000

Face value of each share = Rs. 100

Market value = 100 + 60 = 160

Rate of dividend = 8% p.a.

(i) Annual income = $\dfrac{8 \times 8000}{160}$ = Rs. 400

(ii) Rate of interest on his money = $\dfrac{400 \times 100}{8000}$ = 5%

Q22. A man buys 400 ten-rupee shares at a premium of Rs. 2.50 on each share. if the rate of dividend is 8%, find
(i) his investment (ii) dividend received (iii) yield.

Sol.

No. of shares = 400

Face value of each share = Rs. 10

Market value of each share = Rs. 10 + Rs. 2.50 = 12.50

Rate of dividend = 8%

Face value of 400 shares = 10 × 400 = Rs. 4000

(i) total investment = 12.50 × 400 = Rs. 5000

(ii) total dividend = 4000 × $\dfrac{8}{100}$ = Rs. 320.

(iii) yield percent = $\dfrac{320 \times 100}{5000}$ = $\dfrac{32}{5}$ = 6.4%

Q23. A man invests Rs. 10400 in 6% shares at Rs. 104 and Rs. 11440 in 10.4% shares at Rs. 143. How much income would he get in all?

Sol. In 1st case, total investment = 10400

Rate of dividend = 6%

Market value of each share = Rs. 104

Total dividend = $\dfrac{10400 \times 6}{104}$ = Rs. 600

In 2nd case, Investment = Rs. 11440

Rate of dividend = 10.4%

Market value of each share = Rs. 143.

total dividend = $\dfrac{11440 \times 10.4}{143}$ = Rs. 832.

total dividend from both cases = 600 + 832 = Rs. 1432.

Q24. Mr. Sharma has 60 shares of nominal value Rs. 100 and he decides to sell them when they are at a premium of 60%. He invests the proceeds in shares of nominal value of Rs. 50, quoted at 4% discount, paying 18% dividend annually. Calculate:

(i) The sale proceeds.

(ii) The no. of shares he buys.

(iii) his annual dividend from these shares.

Sol.

No. of shares = 60

Nominal value of each share = 100

Market value of each share = 100 + 60 = 160

(i) Amount received on selling = 160 × 60 = 9600

face value of each share purchased = Rs. 50.

and market value = $50 - \dfrac{50 \times 4}{100}$ = 50 - 2 = Rs. 48.

(ii) No. of shares purchased = $\dfrac{9600}{48}$ = 200

face value of 200 shares = 50 × 200 = 10000

Rate of dividend = 18%

(iii) Annual dividend = $\dfrac{10000 \times 18}{100}$ = Rs. 1800.

Q25. Two companies have share of 7% at Rs. 116 and 9% at Rs. 145 respectively. In which of the shares would be investment be more profitable?

Sol. let the investment in each case = 116×145

Dividend in 1st case = $\dfrac{116 \times 145 \times 7}{116}$ = Rs. 1015

and dividend in 2nd case = $\dfrac{116 \times 145 \times 7}{145}$ = Rs. 1044

from the above it is cleare that the Second type of shares i.e, 9% at Rs. 145 are more profitable.

Q26. which is better investment : 6% Rs. 100 shares at Rs. 12 or 8% Rs. 10 shares at Rs. 15 ?

Sol. let the investment in each case = Rs. 120

In the 1st case, Dividend on Rs. 120 = Rs. 6

In the 2nd case, Dividend on Rs. 10 = $\dfrac{8 \times 10}{100}$ = 0.8

Now dividend on Rs. 15 = 0.8 then

dividend on Rs. 120 = $\dfrac{0.8 \times 120}{15}$ = Rs. 6.4

It is clear that, second investment is more profitable.

Q27. Mukul invests Rs. 9000 in a company paying a dividend of 6% per annum when a share of face value Rs. 100 stands at Rs. 150. what is his annual income? He sells 50% of his shares when the price rises to Rs. 200. what is his gain on this transaction?

Sol. Investment = 9000

Rate of dividend = 6%

Market Value of each share = Rs. 150

and face Value = Rs. 100

(i) Total annual income = $\dfrac{8 \times 9000}{150}$ = Rs. 360

(ii) No. of shares = $\dfrac{9000}{150}$ = 60.

No. of shares sold = 30

Market value of each share = Rs. 200

Amount received = 30 × 200 = Rs. 6000

But purchased price of 30 shares = 30 × 150 = Rs. 4500

∴ Gain = 6000 − 4500 = Rs. 1500

Q28. A man invests Rs. 10080 in 6% hundred-rupee shares at Rs. 112. find his annual income. when the share fall to Rs. 96 he sells out the shares and invests the proceeds in 10% ten-rupee shares at Rs. 8. find the change in his annual income.

Sol.
Investment = Rs. 10080

face value of each share = Rs. 100

Market value of each share = Rs. 112

Rate of dividend = 6%

(i) total income for the year = $\dfrac{10080 \times 6}{112}$ = Rs. 540

No. of shares = $\dfrac{10080}{112}$ = 90

Selling price of 90 shares at the rate of Rs. 96 each

= 90 × 96 = Rs. 8640.

Rate of dividend in new shares = 10%

face value of each share = Rs. 10

and market value of each share = Rs. 8

No. of shares = $\dfrac{8640}{8}$ = 1080

face value of 1080 shares = 1080 × 10 = Rs. 10800

Dividend = $\dfrac{10800 \times 10}{100}$ = Rs. 1080.

Difference in income = 1080 − 540 = Rs. 540 more.

Q29. A man bought 360 ten-rupee shares paying 12% p.a. He sold them when the price rose to Rs. 21 and invested the proceeds in five-rupee shares paying $4\frac{1}{2}$% p.a at Rs. 3.5 per share. find the annual change in his income.

Sol.

No. of shares bought = 360

face value of each share = Rs. 10

Rate of dividend = 12%

Total face value of 360 shares = 10 × 360 = Rs. 3600

$$\text{yearly dividend} = \frac{3600 \times 12}{100} = Rs. 432$$

on selling the share at Rs. 21, the amount received

= 21 × 360 = Rs. 7560

face value of new shares = 5 and market value = 3.5

Rate of dividend = $4\frac{1}{2}$%

$$\text{No. of shares purchased} = \frac{7560}{3.5} = 2160$$

face value of 2160 shares = 5 × 2160 = Rs. 10800

$$\text{Dividend} = \frac{10800 \times 9}{100 \times 2} = Rs. 486.$$

Increase income = 486 − 432 = Rs. 54 gain.

Q30. A person invests Rs. 4368 and buys certain hundred-rupee shares at 91 He sells out shares worth Rs. 2400 when they have risen to 95 and the remainder when they have fallen to 85 find the gain or loss on the total transaction.

Sol.

Investment = 4368

Market value of each share = 91

face value of each share = Rs. 100

No. of shares = $\frac{4368}{9}$ = 48.

face value of 24 shares = 24 × 100 = Rs. 2400.

Selling price of shares worth Rs. 2400 = $\frac{2400 \times 95}{100}$ = Rs. 2280.

face value of remaining shares = 24 × 100 = Rs. 2400

selling price of shares + remaining amount = $\frac{2400 \times 85}{100}$ = 2040

total amount received = 2280 + 2040 = Rs. 4320

∴ Loss = 4368 - 4320 = Rs. 48.

Q31. By purchasing Rs. 50 gas shares for Rs. 80 each, a man gets 4% profit on his investment. what rate percent is company paying? what is his dividend if he buys 200 shares?

sol.   Market value of each share = Rs. 80

face value of each share = Rs. 50

Interest on investment = 4%

Dividend on Rs. 80 = $\frac{80 \times 4}{100}$ = $\frac{32}{10}$

Now dividend on face value Rs. 50 = $\frac{32}{10}$.

∴ percent dividend = $\frac{32}{10} \times \frac{100}{50}$ = $\frac{64}{10}$ = 6.4 %.

No. of shares purchased = 200.

face value of 200 shares = Rs. 200 × 50 = Rs. 10000

∴ Dividend = 10000 × $\frac{6.4}{100}$ = Rs. 640

Q32. Rs. 100 shares of a company are sold at a discount of Rs. 20. if the return on the investment is 15%, find the rate of dividend declared.

sol.   Market value of each share = 100 - 20 = Rs. 80.

Interest on investment of Rs. 80 = 15% × 80 = $\frac{15}{100} \times 80$ = Rs. 12.

Dividend on face value of Rs.100 = 12.

Rate of dividend = 12%

Q33. A company declared a dividend of 14%. find the market value of Rs.50 shares if the return on the investment was 10%

sol. Rate of dividend = 14%

Dividend on Rs.50 = $\frac{14 \times 50}{100}$ = Rs.7.

Now Rs.10 is interest on the investment of = Rs.100

Rs.7 will be the interest on = $\frac{100 \times 7}{10}$ = Rs.70

Hence market value of Rs.70 = Rs.70

Q34. At what price should a 6.25% Rs.100 share be quoted when the money is worth 5% ?

Sol. Interest on Rs.100 worth = Rs.5

If interest is Rs.5, then market value = Rs.100

and if interest is Rs.6.25, then market value

$= \frac{100}{5} \times 6.25 = \frac{100}{5} \times \frac{625}{100} = 125$

Market value of each share = Rs.125.

Q35. At what price should a 6.25% Rs.50 share be quoted when the money is worth 10% ?

sol. Interest on Rs.100 worth = Rs.10

If interest is Rs.10, then market value = Rs.100.

and if interest is Rs.6.25, then market value

$= \frac{50 \times 6.25}{10} = \frac{50 \times 625}{10 \times 100} = Rs.31.25$

36. A company with 10000 shares of Rs.100 each declares an annual dividend of 5%.
(i) what is the total amount of dividend paid by the company.
(ii) what would be the annual income of a man, who has 72 shares, in the company?
(iii) If he received only 4% on his investment, find the price he paid for each share.

Sol.
No. of shares = 10000

face value of each share = Rs.100

Rate of dividend = 5%

(i) total face value of 10000 shares = $100 \times 10000 = Rs.1000000$

total amount of dividend = $\frac{1000000 \times 5}{100} = Rs.50000$

(ii) Income of 72 shares = $72 \times 5 = Rs.360$

(iii) Rate of interest on investment = 4%

Market value of each share = $\frac{100 \times 5}{4} = Rs.125$

Q37. A man sold some Rs.100 shares paying 10% dividend at a discount of 25% and invested the proceeds in Rs.100 shares paying 16% dividend quoted at Rs.80 and thus increased his income by Rs.2000. Find the no. of shares sold by him.

Sol.
Face value of each share = Rs.100

Market value of each share = $100 - 25 = Rs.75$

Rate of dividend = 10%

let no. of shares = x

Selling price = $x \times 75 = Rs.75x$

Face value of x share = $100x$

Dividend annually = $100x \times \frac{10}{100} = 10x$

No. of shares purchased $= \dfrac{75x}{80} = \dfrac{15x}{16}$

Face value of $\dfrac{15x}{16}$ shares $= \dfrac{15x}{16} \times 100 = \dfrac{1500x}{16}$

Divideud $= \dfrac{1500x}{16} \times \dfrac{16}{100} = 15x$

$\therefore$ Increase in income $= 15x - 10x = 5x$

Now $5x = 2000 \implies x = \dfrac{2000}{5} = 400$

$\therefore$ No. of shares purchased $= 400$.

Q38 A man invests Rs. 6750, partly in shares of 6% at Rs. 140 and partly in shares of 5% at Rs. 125. if his total income is Rs. 280, howmuch has he invested in each?

Sol. Let the investment in 1st case $= x$

then investment in 2nd case $= 6750 - x$.

In 1st Case, the Divideud $= x \times \dfrac{6}{140} = Rs. \dfrac{3x}{70}$

and divideud in 2nd case $= (6750 - x) \times \dfrac{5}{125} = Rs. \dfrac{6750 - x}{25}$

$\therefore$ total divideud $= \dfrac{3x}{70} + \dfrac{6750 - x}{25} = 280$

$\implies 15x + 14(6750 - x) = 280 \times 350$ (LCM = 350)

$\implies 15x + 14 \times 6750 - 14x = 280 \times 350$

$\implies x = 280 \times 350 - 14 \times 6750$

$\implies x = 98000 - 94500$

$\implies x = 3500$.

$\therefore$ Investment in first case $= Rs. 3500$.

and investment in Second case $= 6750 - 3500$.

$= Rs. 3250$.

Q39. By selling at Rs. 77, some $2\frac{1}{4}\%$ shares of face value Rs. 100, and investing the proceeds in 6% shares of face value Rs. 100, selling at Rs. 110, a person increased his income by Rs. 117 p.a. How many shares did he sell?

Sol.

let the no. of shares $= x$

on selling at Rs. 77, the amount received $= x \times 77 = 77x$

and dividend received $= 77x \times \dfrac{9}{4 \times 77} = \dfrac{9x}{4}$

Again investing Rs. 77x for the purchase of shares of market value Rs. 110 $= \dfrac{77x}{110}$ shares

Dividend $= \dfrac{77x}{110} \times 6 = \dfrac{42x}{10}$

Difference in income $= \dfrac{42x}{10} - \dfrac{9x}{4}$

$= \dfrac{84x - 45x}{20}$

$= \dfrac{39x}{20}$

$\therefore \dfrac{39x}{20} = 117$

$\Rightarrow x = \dfrac{117 \times 20}{39} = 60$

$\therefore$ Hence the no. of shares sold $= 60$.