

Loss And Gain

At 12d profit in a shilling how much per cent?

$$\begin{array}{r} 100 : 12 :: 100 : x \\ 12 \overline{) 1200} \\ 100 \\ \underline{200} \\ 1200 \end{array}$$

At 25c profit in a dollar how much per cent?

$$\begin{array}{r} 100 : 25 :: 100 : x \\ 25 \overline{) 1000} \\ 100 \\ \underline{250} \\ 1000 \end{array}$$

Examples

If I buy cloth at 4dols 16cts per yd on eight months credit & sell it again at 3dols 9cts per yd ready money what do I lose per cent allowing 6 per cent discount on the purchase price?

$$\begin{array}{r} 100 : 104 :: 100 : x \\ 104 \overline{) 10400} \\ 100 \\ \underline{400} \\ 10400 \end{array}$$

To know how a commodity must be sold to gain or lose so much per cent

Rule

As 100 is to the purchase price so is 100 + or - the profit added or less subtracted to the selling price

Examples

If I want 100 25lb of sugar cost 12.6dols how much it be sold per lb to gain 30 per cent?

$$\begin{array}{r} 100 : 12.6 :: 130 : x \\ 12.6 \overline{) 13000} \\ 1260 \\ \underline{400} \\ 13000 \end{array}$$

Bought 90 gallons of wine at 10d 2c per gallon but by accident 10 gal leaked out at what rate must I sell the remainder per gal to gain upon the whole prime cost at the rate of 12 per cent?

$$\begin{array}{r} 100 : 10.2 :: 112 : x \\ 10.2 \overline{) 11200} \\ 1020 \\ \underline{1000} \\ 11200 \end{array}$$

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Rule

As 100 + or - the gain per cent added or less subtracted is to the price so is 100 to the prime cost

Examples

If 40lb of chocolate be sold at 25cts per lb & gain 9 per cent what do the whole cost me?

$$\begin{array}{r} 100 : 109 :: 100 : x \\ 109 \overline{) 10900} \\ 100 \\ \underline{900} \\ 10900 \end{array}$$

Bought 5cwt of sugar & sold it again 13c per lb by which I gained at the rate of 23 1/2 per cent what did the sugar cost me?

$$\begin{array}{r} 100 : 123.5 :: 100 : x \\ 123.5 \overline{) 12350} \\ 100 \\ \underline{2350} \\ 12350 \end{array}$$

Single Fellowship

When the several shares of stock are continued in trade an equal term

Rule

As the whole stock is to the whole gain or loss so is each man's particular stock to his particular share of the gain or loss

Examples

A captain mate & 20 seamen took a private vessel of 350dols of which the captain takes 10 shares the mate 5 shares the remainder of the vessel is equally divided among the seamen how much did each man receive?

$$\begin{array}{r} 350 : 35 :: 10 : x \\ 35 \overline{) 3500} \\ 350 \\ \underline{3500} \\ 3500 \end{array}$$

A & B traded together & gained 10dols A put in 60dols B put in 40dols how much did each receive?

$$\begin{array}{r} 100 : 100 :: 60 : x \\ 100 \overline{) 6000} \\ 100 \\ \underline{6000} \\ 6000 \end{array}$$