Answer on question #39846 – Math - Other

Mark purchases a stock one year ago for $26. The stock is now worth $34, and the total return to Mark for owning the stock was 0.39. What is the dollar amount of dividends that he received for owning the stock during the year?

Solution:

The dividend is money paid directly to an investor in a company's stock. Some publicly owned companies offer one with their stock, while others do not. The choice of buying and owning a stock that pays a dividend is up to the individual investor, as there are both positive and negative aspects to consider. A company that offers one with its stock is often a larger, more stable business in a field with little growth or a slow, steady growth potential. Dividends may be in the form of cash, stock or property. Most secure and stable companies offer dividends to their stockholders. Their share prices might not move much, but the dividend attempts to make up for this.

The stock dividend is a payment made by a company to its shareholders. Usually the money to pay for a dividend comes from a portion of the earnings of the company. A company declares what amount of money per share it will pay out in the form of a dividend.

According to our task we should to admit that when a stock rises, the value of our stake rises. More than half of the companies pay a dividend, or a cash payment, typically every quarter. When we add the change in value of the stock to the dividend, we calculate the investors' total return. The total return is a tally of the net gain, or loss, an investor received by owning a stock and receiving the dividend.

In our task we have the price of the stock at the end of the period, which is equal to $34, the price of the stock at the beginning of the period, which is equal to $26 and the total return to Mark for owning the stock, which is equal to 0.39. We need to find the dollar amount of dividends that he received for owning the stock during the year.

We start with the formula for the total stock return is the appreciation in the price plus any dividends paid, divided by the original price of the stock. The first portion of the numerator of the total stock return formula looks at how much the value has increased $(P_1 - P_0)$. The denominator of the formula to calculate a stock's total return is the original price of the stock which is used due to being the original amount invested.

$$\text{Total Stock Return} = \frac{(P_1 - P_0) + D}{P_0}$$

Where P_0 is the initial stock price, P_1 is the ending stock price and D is the dividends. From this formula find the value of the dividends:

$$\frac{(P_1 - P_0) + D}{P_0} = \text{Total Stock Return}$$

Multiply both sides of the equation by P_0:

$$(P_1 - P_0) + D = P_0 \cdot \text{Total Stock Return}$$

Then subtract from both sides of the equation the expression $(P_1 - P_0)$.

$$D = (P_0 \cdot \text{Total Stock Return}) - (P_1 - P_0)$$

Substitute the given values into the obtained formula:

$$D = (\$26 \cdot 0.39) - (\$34 - \$26)$$

Simplify.

$$D = \$10.14 - \$8$$

Finally the dollar amount of dividends is equal:

$$D = \$2.14$$

Answer: *The dollar amount of dividends that Mark received for owning the stock during the year is equal to $2.14.*