

06 - Proportions and Change

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Outline

- 1 Change According to Proportions and Percents
- 2 Percentage and Proportion Problems

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- Using the letters a , b , c , and d from the previous problem, if an increase in a causes a decrease in c , then the corresponding inverse proportion is $a : b :: d : c$.

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- Using the letters a , b , c , and d from the previous problem, if an increase in a causes a decrease in c , then the corresponding inverse proportion is $a : b :: d : c$.
- You must read the nature of a problem to know whether it is decreasing and therefore an inverse proportion.

Increasing, Amount, and Markup

Recall the term amount.

$$\text{amount} = \text{base} + \text{percentage}$$

Decreasing, Difference, Discount

Recall the term difference.

$$\text{difference} = \text{base} - \text{percentage}$$

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Problem 3

If a staff of 4ft casts a shadow 7ft in length, what is the height of a tower which casts a shadow of 198ft at the same time?

Problem 4

A homeowner sells their house at a loss of 20%. If the selling price was \$60,000.00, what was the original price of the home?

Problem 5

In the erection of a house I paid twice as much for material as for labor. Had I paid 6% more for material, and 9% more for labor, my house would have cost \$1284.00; what was its cost?