

## Percent Increase and Decrease

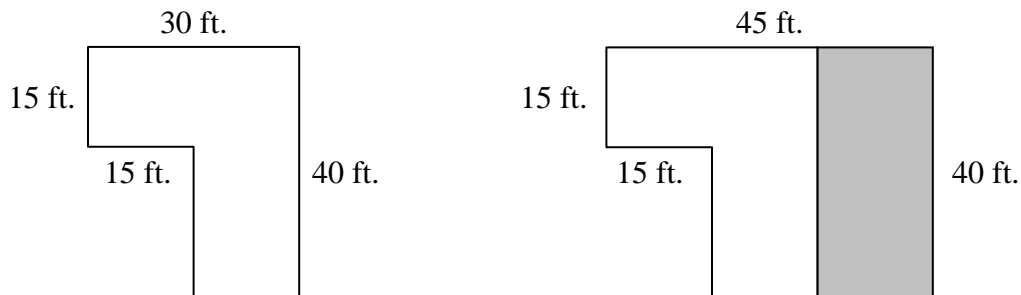
Write an equation or proportion, and then solve it to answer each of the following problems.

[1] Kevin weighed 120 pounds until the holidays, when he ate heavily and saw his weight increase to 135 pounds. What was the percent increase in his weight?

[2] A \$60.00 baseball glove is advertised on sale for \$48.90. What percent discount does this represent?

[3] Last week, Amber mowed the lawn in 2 hours and 30 minutes. This week, it took her only 2 hours and 5 minutes. By what percent has she improved her time?

[4] Marco built an addition onto his house. The old and new floor plans are pictured below. To the nearest percent, how much larger is his house now?



[5] In 1850, the population of the United States was 26.5 million. One hundred years later it had risen to 206.5 million. What was the percent increase in population from 1850 to 1950?

[6] A survey revealed in 1972 that **2 out of every 5** students went to college. A similar survey ten years later revealed that **6 out of every 10** students went to college. What percent increase has taken place over these ten years?

For problems [7] and [8], use the picture of the cube shown below to help you.

[7] This cube has the length of each of its edges doubled. What percent increase will occur in its **volume** as a result?

[8] In the same cube as in problem [7], what would the percent increase in its **surface area** be?

