7.RP.A.3 Solve Problems Involving Percent Increase and Decrease

7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems.

1. Find the percent of change, rounded to the nearest whole percent. Describe the change as an increase or decrease.
$6.25/h to $6.75/h

   [A] 8% increase   [B] 9% decrease

   [C] 8% decrease   [D] 9% increase

2. Find the percent of change, rounded to the nearest whole percent. Describe the change as an increase or decrease.
$7.45/h to $6.95/h

3. In a certain week, the London stock market went down from 1835 to 1573. What was the percent of decrease to the nearest whole percent?

4. The circulation of a newsletter decreased from 6500 to 3575. What was the percentage decrease in circulation?

   [A] 181%   [B] 4.5%

   [C] 55%   [D] 45%

5. The sales of HiTop sneakers rose from $5 million to $5.4 million. Find the percent increase to the nearest whole percent.

   [A] 0.7%   [B] 8%

   [C] 7%   [D] 0.8%

6. Use a calculator to find the percent of change of a price that goes from $19.99 to $16.99. Describe the percent of change as a percent of increase or decrease. Round to the nearest percent.

7. Chris bought a guitar for $77.00 and sold it for $126.28. What percent profit did Chris make on the guitar?

8. Vicki paid $11.25 for a pair of slacks that usually sells for $25. What percent discount did she receive?

   [A] 13.75%   [B] 36.25%

   [C] 55%   [D] 45%

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9. Use any problem solving strategy to solve the following problem. Michael reduced the price of an item by 15%. What percent does Michael need to increase the reduced price by to get back to the original price? Round to the nearest percent.

10. Compare the quantities in Column A and Column B.

   Column A | Column B
   the percent of change for $325 | the percent of change for $250
   discounted to $300 | discounted to $225

   [A] The quantity in Column A is greater.   [B] The quantity in Column B is greater.

   [C] The quantities are equal.

   [D] The relationship cannot be determined from the information given.

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Answer Key

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[1] A

[2] 7% decrease

[3] 14%

[4] D

[5] B

[6] 15%; decrease

[7] 64%

[8] C

[9] about 18%

[10] B