

LESSON
3-2

Percent Increase and Decrease***Practice and Problem Solving: D***

Jessica had 80 songs on her iPod. She downloaded 10 more songs.
What was the percent of increase of songs on her iPod?

Step 1 Find the amount of change.

Subtract the lesser value from the greater value.

$$\text{Amount of change} = 90 - 80 = 10$$

Step 2 Find the percent of change.

$$\begin{aligned} \text{Percent of Change} &= \frac{\text{Amount of Change}}{\text{Original Amount}} \\ &= \frac{10}{80} \times 100 = 12.5\% \end{aligned}$$

Find each percent increase. Round to the nearest percent. The first one is done for you.

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| 1. From \$15 to \$21 <u>40%</u> | 2. From 12 teachers to 48 teachers _____ |
| 3. From 80 pencils to 152 pencils _____ | 4. From 40 cans to 70 cans _____ |

Find each percent decrease. Round to the nearest percent. The first one is done for you.

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| 5. From 80 miles to 15 miles <u>81%</u> | 6. From 100 ounces to 25 ounces _____ |
| 7. From \$60 to \$40 _____ | 8. From 39 seconds to 13 seconds _____ |

Find the new amount given the original amount and the percent of change. The first one is done for you.

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|--------------------------------------|--------------------------------------|
| 9. \$25; 10% increase <u>\$27.50</u> | 10. 160 bananas; 20% decrease _____ |
| 11. 200 books; 75% decrease _____ | 12. 52 companies; 25% increase _____ |

Solve.

13. Last year, there were 400 students at Woodland Middle School. This year, the student population will increase by 5%. What will be the school's student population this year?

14. A backpack that normally sells for \$39 is on sale for 30% off. Find the amount of the sale price.
