Lesson Summary

- Visual models or numeric methods can be used to solve percent problems.
- An equation can be used to solve percent problems:

$$\text{Part} = \text{Percent} \times \text{Whole}.$$

Problem Set

1. Represent each situation using an equation. Check your answer with a visual model or numeric method.
   a. What number is 40% of 90?
   b. What number is 45% of 90?
   c. 27 is 30% of what number?
   d. 18 is 30% of what number?
   e. 25.5 is what percent of 85?
   f. 21 is what percent of 60?

2. 40% of the students on a field trip love the museum. If there are 20 students on the field trip, how many love the museum?

3. Maya spent 40% of her savings to pay for a bicycle that cost her $85.
   a. How much money was in her savings to begin with?
   b. How much money does she have left in her savings after buying the bicycle?

4. Curtis threw 15 darts at a dartboard. 40% of his darts hit the bull's-eye. How many darts did not hit the bull's-eye?

5. A tool set is on sale for $424.15. The original price of the tool set was $499.00. What percent of the original price is the sale price?

6. Matthew scored a total of 168 points in basketball this season. He scored 147 of those points in the regular season, and the rest were scored in his only playoff game. What percent of his total points did he score in the playoff game?

7. Brad put 10 crickets in his pet lizard's cage. After one day, Brad's lizard had eaten 20% of the crickets he had put in the cage. By the end of the next day, the lizard had eaten 25% of the remaining crickets. How many crickets were left in the cage at the end of the second day?

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8. A furnace used 40% of the fuel in its tank in the month of March and then used 25% of the remaining fuel in the month of April. At the beginning of March, there were 240 gallons of fuel in the tank. How much fuel (in gallons) was left at the end of April?

9. In Lewis County, there were 2,277 student athletes competing in spring sports in 2014. That was 110% of the number from 2013, which was 90% of the number from the year before. How many student athletes signed up for a spring sport in 2012?

10. Write a real-world word problem that could be modeled by the equation below. Identify the elements of the percent equation and where they appear in your word problem, and then solve the problem.

$$57.5 = p(250)$$