NAME   DATE   PERIOD
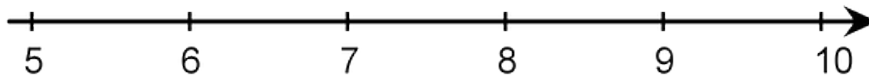
Unit 8, Lesson 5
Practice Problems

1. a. Explain how you know that $\sqrt{37}$ is a little more than 6.

    b. Explain how you know that $\sqrt{95}$ is a little less than 10.

    c. Explain how you know that $\sqrt{30}$ is between 5 and 6.

2. Plot each number on the number line:
$$6, \sqrt{83}, \sqrt{40}, \sqrt{64}, 7.5$$

3. Mark and label the positions of two square root values between 7 and 8 on the number line.

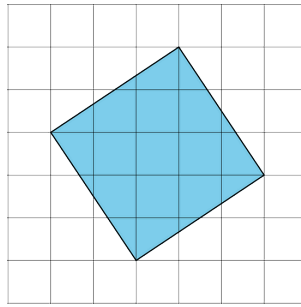4. Select all the irrational numbers in the list.
$$\frac{2}{3}, \frac{-123}{45}, \sqrt{14}, \sqrt{64}, \sqrt{\frac{9}{1}}, -\sqrt{99}, -\sqrt{100}$$

5. Each grid square represents 1 square unit. What is the exact side length of the shaded square?
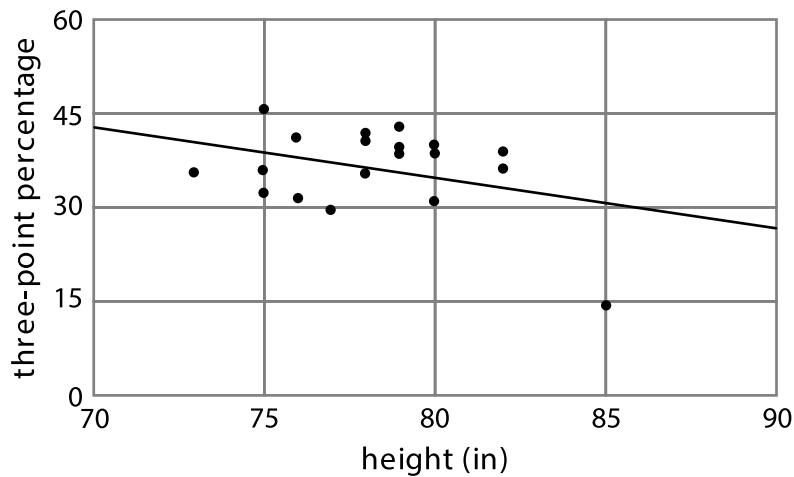
6. For each pair of numbers, which of the two numbers is larger? Estimate how many times larger.

   a. $0.37 \cdot 10^6$ and $700 \cdot 10^4$

   b. $4.87 \cdot 10^4$ and $15 \cdot 10^5$

   c. $500,000$ and $2.3 \cdot 10^8$

7. The scatter plot shows the heights (in inches) and three-point percentages for different basketball players last season.

   a. Circle any data points that appear to be outliers.

   b. Compare any outliers to the values predicted by the model.