

Lesson 5 Practice Problems

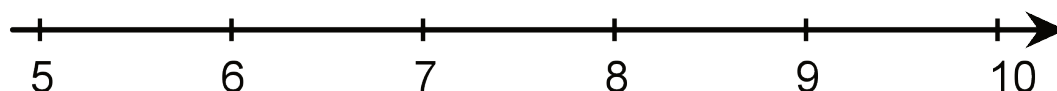
1. a. Explain how you know that $\sqrt{37}$ is a little more than 6.

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. The equation $x^2 = 25$ has *two* solutions. This is because both $5 \cdot 5 = 25$, and also $-5 \cdot -5 = 25$. So, 5 is a solution, and also -5 is a solution.

Select **all** the equations that have a solution of -4:

A. $10 + x = 6$

B. $10 - x = 6$

C. $-3x = -12$

D. $-3x = 12$

E. $8 = x^2$

F. $x^2 = 16$

4. Find all the solutions to each equation.

a. $x^2 = 81$

b. $x^2 = 100$

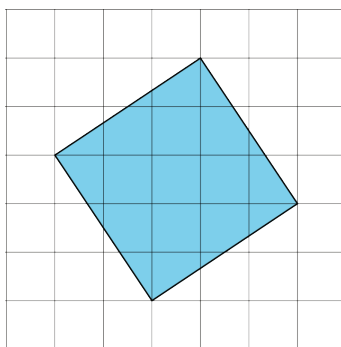
c. $\sqrt{x} = 12$

5. Select all the irrational numbers in the list.

$$\frac{2}{3}, \frac{-123}{45}, \sqrt{14}, \sqrt{64}, \sqrt{\frac{9}{1}}, -\sqrt{99}, -\sqrt{100}$$

(From Unit 8, Lesson 3.)

6. Each grid square represents 1 square unit. What is the exact side length of the shaded square?



(From Unit 8, Lesson 2.)

7. For each pair of numbers, which of the two numbers is larger? Estimate how many times larger.

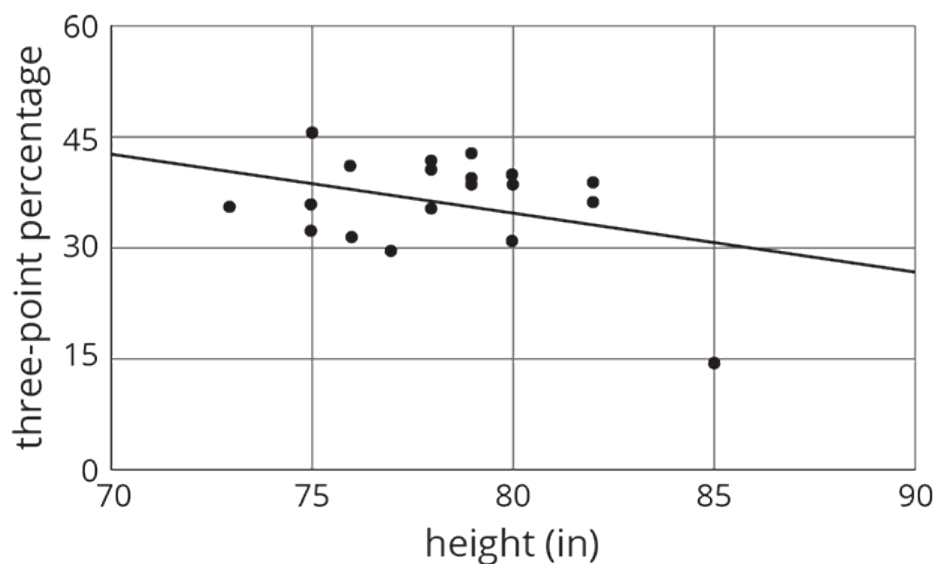
a. $0.37 \cdot 10^6$ and $700 \cdot 10^4$

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

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

(From Unit 7, Lesson 10.)

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



- Circle any data points that appear to be outliers.
- Compare any outliers to the values predicted by the model.

(From Unit 6, Lesson 4.)