## Unit 8 Lesson 5 Cumulative Practice Problems

* 1. Explain how you know that $\sqrt{37}$ is a little more than 6.
	2. Explain how you know that $\sqrt{95}$ is a little less than 10.
	3. Explain how you know that $\sqrt{30}$ is between 5 and 6.
1. Plot each number on the number line: $6,\sqrt{83},\sqrt{40},\sqrt{64},7.5$
* 
1. The equation $x^{2}=25$ has *two* solutions. This is because both $5⋅5=25$, and also $-5⋅-5=25$. So, 5 is a solution, and also -5 is a solution.
* Select **all** the equations that have a solution of -4:
	1. $10+x=6$
	2. $10−x=6$
	3. $-3x=-12$
	4. $-3x=12$
	5. $8=x^{2}$
	6. $x^{2}=16$
1. Find all the solutions to each equation.
	1. $x^{2}=81$
	2. $x^{2}=100$
	3. $\sqrt{x}=12$
2. 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.)
1. Each grid square represents 1 square unit. What is the exact side length of the shaded square?
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* (From Unit 8, Lesson 2.)
1. For each pair of numbers, which of the two numbers is larger? Estimate how many times larger.
	1. $0.37⋅10^{6}$ and $700⋅10^{4}$
	2. $4.87⋅10^{4}$ and $15⋅10^{5}$
	3. $500,000$ and $2.3⋅10^{8}$
* (From Unit 7, Lesson 10.)
1. The scatter plot shows the heights (in inches) and three-point percentages for different basketball players last season.
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	1. Circle any data points that appear to be outliers.
	2. Compare any outliers to the values predicted by the model.
* (From Unit 6, Lesson 4.)



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