### Lesson 4 Practice Problems

* 1. Find the exact length of each line segment.
	+ 
	1. Estimate the length of each line segment to the nearest tenth of a unit. Explain your reasoning.
1. Plot each number on the $x$-axis: $\sqrt{16}, \sqrt{35}, \sqrt{66}$. Consider using the grid to help.
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1. Use the fact that $\sqrt{7}$ is a solution to the equation $x^{2}=7$ to find a decimal approximation of $\sqrt{7}$ whose square is between 6.9 and 7.1.
* 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. The points $\left(12,23\right)$ and $\left(14,45\right)$ lie on a line. What is the slope of the line?
* (From Unit 5, Lesson 4.)



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