## Unit 8 Lesson 4 Cumulative 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.
* 
*
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. Graphite is made up of layers of graphene. Each layer of graphene is about 200 picometers, or $200×10^{-12}$ meters, thick. How many layers of graphene are there in a 1.6-mm-thick piece of graphite? Express your answer in scientific notation.
* (From Unit 7, Lesson 14.)
1. Here is a scatter plot that shows the number of assists and points for a group of hockey players. The model, represented by $y=1.5x+1.2$, is graphed with the scatter plot.
* 
	1. What does the slope mean in this situation?
	2. Based on the model, how many points will a player have if he has 30 assists?
* (From Unit 6, Lesson 6.)
1. The points $(12,23)$ and $(14,45)$ lie on a line. What is the slope of the line?
* (From Unit 3, Lesson 5.)



© CC BY Open Up Resources. Adaptations CC BY IM.