### Lesson 9 Practice Problems

1. For each graph, calculate the slope of the line.
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1. Match each pair of points to the slope of the line that joins them.
	1. $\left(9,10\right)$ and $\left(7,2\right)$
	2. $\left(-8,-11\right)$ and $\left(-1,-5\right)$
	3. $\left(5,-6\right)$ and $\left(2,3\right)$
	4. $\left(6,3\right)$ and $\left(5,-1\right)$
	5. $\left(4,7\right)$ and $\left(6,2\right)$
	6. 4
	7. $-3$
	8. $-\frac{5}{2}$
	9. $\frac{6}{7}$
2. Draw a line with the given slope through the given point. What other point lies on that line?
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	1. Point A, slope = $-3$
	2. Point A, slope = $\frac{-1}{4}$
	3. Point C, slope = $\frac{-1}{2}$
	4. Point E, slope = $\frac{-2}{3}$
1. Suppose you wanted to graph the equation $y=-4x−1$.
	1. Describe the steps you would take to draw the graph.
	2. How would you check that the graph you drew is correct?
2. Write an equation for each line.
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1. A publisher wants to figure out how thick their new book will be. The book has a front cover and a back cover, each of which have a thickness of $\frac{1}{4}$ of an inch. They have a choice of which type of paper to print the book on.
	1. Bond paper has a thickness of $\frac{1}{4}$ inch per one hundred pages. Write an equation for the width of the book, $y$, if it has $x$ hundred pages, printed on bond paper.
	2. Ledger paper has a thickness of $\frac{2}{5}$ inch per one hundred pages. Write an equation for the width of the book, $y$, if it has $x$ hundred pages, printed on ledger paper.
	3. If they instead chose front and back covers of thickness $\frac{1}{3}$ of an inch, how would this change the equations in the previous two parts?
* (From Unit 5, Lesson 6.)



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