### Lesson 12 Practice Problems

1. Select **all** the points that are on the line through $\left(0,5\right)$ and $\left(2,8\right)$.
	1. $\left(4,11\right)$
	2. $\left(5,10\right)$
	3. $\left(6,14\right)$
	4. $\left(30,50\right)$
	5. $\left(40,60\right)$
2. All three points displayed are on the line. Find an equation relating $x$ and $y$.
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1. Here is triangle $ABC$.
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	1. Draw the dilation of triangle $ABC$ with center $\left(2,0\right)$ and scale factor 2.
	2. Draw the dilation of triangle $ABC$ with center $\left(2,0\right)$ and scale factor 3.
	3. Draw the dilation of triangle $ABC$ with center $\left(2,0\right)$ and scale factor $\frac{1}{2}$.
	4. What are the coordinates of the image of point $C$ when triangle $ABC$ is dilated with center $\left(2,0\right)$ and scale factor $s$?
	5. Write an equation for the line containing all possible images of point $C$.
1. Here are some line segments.
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	1. Which segment is a dilation of $\overset{¯}{BC}$ using $A$ as the center of dilation and a scale factor of $\frac{2}{3}$?
	2. Which segment is a dilation of $\overset{¯}{BC}$ using $A$ as the center of dilation and a scale factor of $\frac{3}{2}$?
	3. Which segment is not a dilation of $\overset{¯}{BC}$, and how do you know?
* (From Unit 2, Lesson 4.)



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