Lesson 12 Practice Problems

1. Select **all** the points that are on the line through $(0, 5)$ and $(2, 8)$.

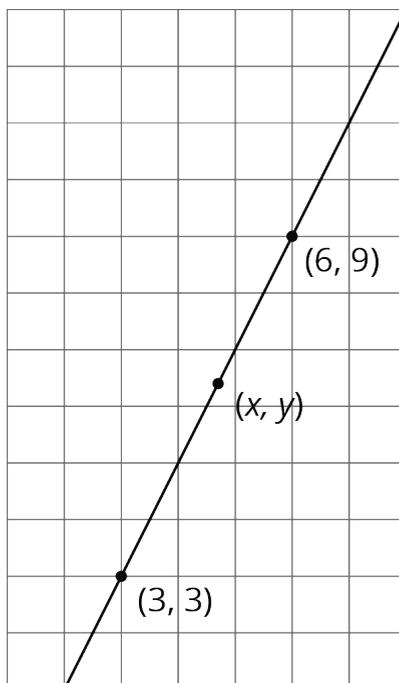   A. $(4, 11)$

    B. $(5, 10)$
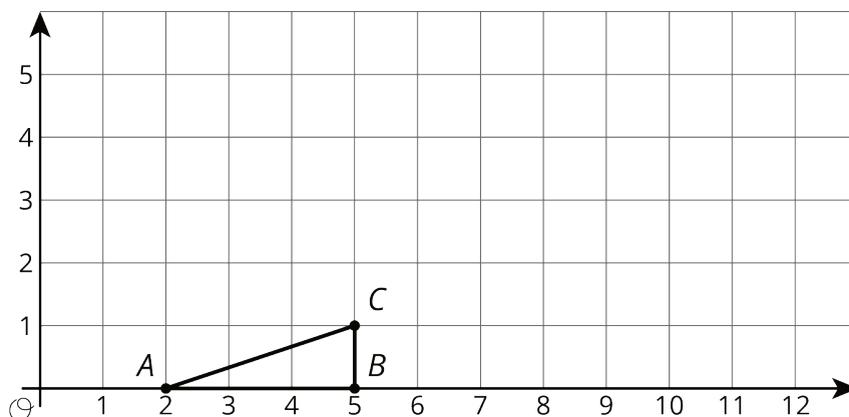
    C. $(6, 14)$

    D. $(30, 50)$

    E. $(40, 60)$

2. All three points displayed are on the line. Find an equation relating x and y.

3. Here is triangle ABC.

a. Draw the dilation of triangle ABC with center $(2, 0)$ and scale factor 2.

b. Draw the dilation of triangle ABC with center $(2, 0)$ and scale factor 3.

c. Draw the dilation of triangle ABC with center $(2, 0)$ and scale factor $\frac{1}{2}$.

d. What are the coordinates of the image of point C when triangle ABC is dilated with center $(2, 0)$ and scale factor s?

e. Write an equation for the line containing all possible images of point C.

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4. Here are some line segments.
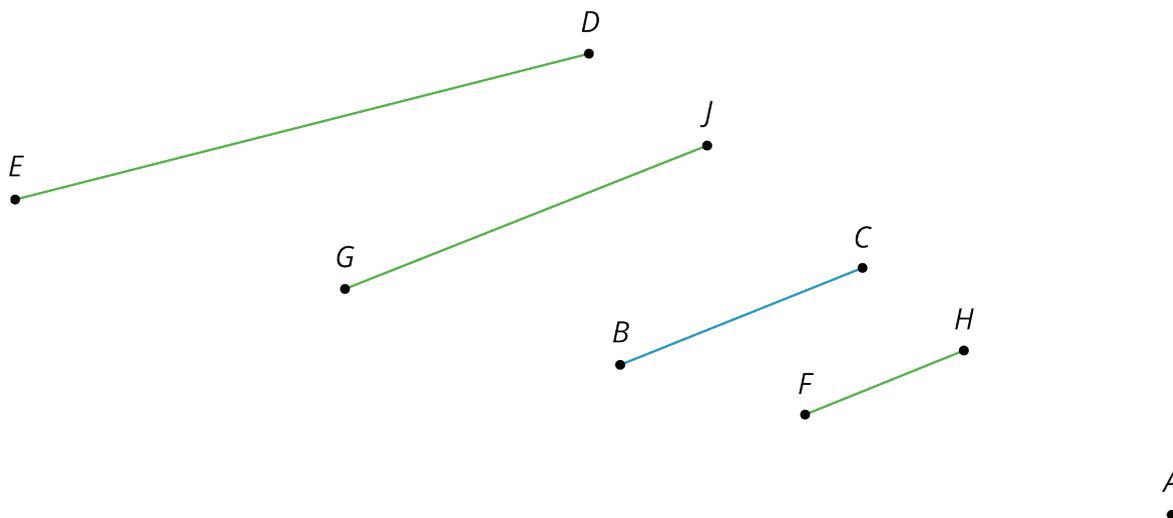
a. Which segment is a dilation of $\overline{BC}$ using A as the center of dilation and a scale factor of $\frac{2}{3}$?

b. Which segment is a dilation of $\overline{BC}$ using A as the center of dilation and a scale factor of $\frac{3}{2}$?

c. Which segment is not a dilation of $\overline{BC}$, and how do you know?

(From Unit 2, Lesson 4.)