

TEKS A.5.C



LESSON

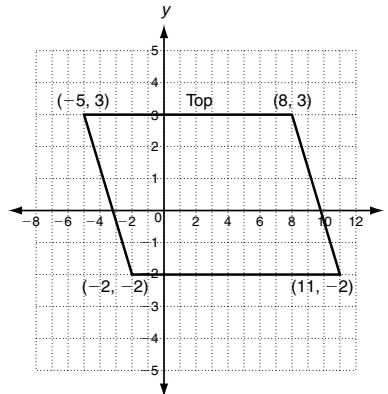
5-8

# Problem Solving

## Slopes of Parallel and Perpendicular Lines

Write the correct answer.

1. Hamid is making a stained-glass window. He needs a piece of glass that is a perfect parallelogram. Hamid lays a piece of glass that he has cut on a coordinate grid. Show that the glass is in the shape of a parallelogram.



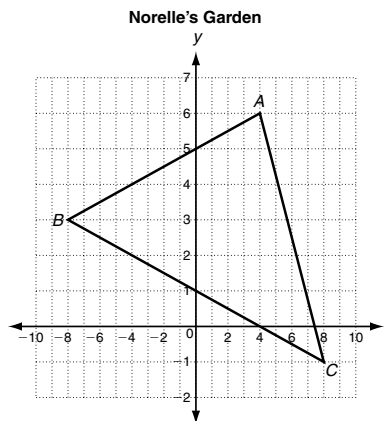
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2. Norelle's garden is shown at right. Is her garden in the shape of a right triangle? Justify your answer.



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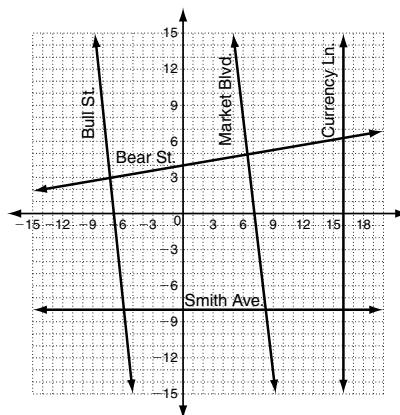
The graph shows a street map. Use it to answer questions 3–5.

3. The district plans to add Industrial Road next year. It will run perpendicular to Smith Ave. and pass through  $(-14, 2)$ . What equation will describe the location of Industrial Road?

- A**  $y = 14 - x$       **C**  $y = -14$   
**B**  $y = x - 14$       **D**  $x = -14$

4. In two years, the business district plans to add Stock Street. It will run parallel to Market Blvd. and pass through  $(-1, 5)$ . What equation will describe the location of Stock Street?

- F**  $y = -7x + 12$       **H**  $y = \frac{1}{7}x + \frac{34}{7}$   
**G**  $y = -7x - 2$       **J**  $y = \frac{1}{7}x + \frac{36}{7}$



5. What is the slope of a street parallel to Bear Street?

- A**  $-7$       **C**  $\frac{1}{7}$   
**B**  $-\frac{1}{7}$       **D**  $7$