

Standard 8.G.7 (M)

Problem Solving II

Directions: Solve each item below. Round your answers to the nearest hundredth. Show all of your work.

1. A bike route starts off leading riders 12 miles north and then ends with them traveling 3 miles west. What is the shortest distance between the starting and ending points of this bike route?

Answer: _____

2. Jonesville and Carlton are two towns on either side of a mountain. To drive from Jonesville to Carlton, you must drive 30 miles west and then 15 miles south. The state wants to build a tunnel through the mountain, with a road that directly connects the two towns. How long would the road be?

Answer: _____

3. During the summer, David washes windows to earn money. He uses a tall ladder to reach second-story windows. To reach a window 8 feet from the ground, David places the base of the ladder 5 feet from the wall. How long must David's ladder be to reach the window?

Answer: _____

4. Ken is fencing his entire rectangular backyard. The shorter side of the yard is 10 meters, and the yard's diagonal measures 20 meters.

- a. What is the length of the longer side of the yard?

Answer: _____

- b. How much fencing does Ken need to enclose the yard on all four sides?

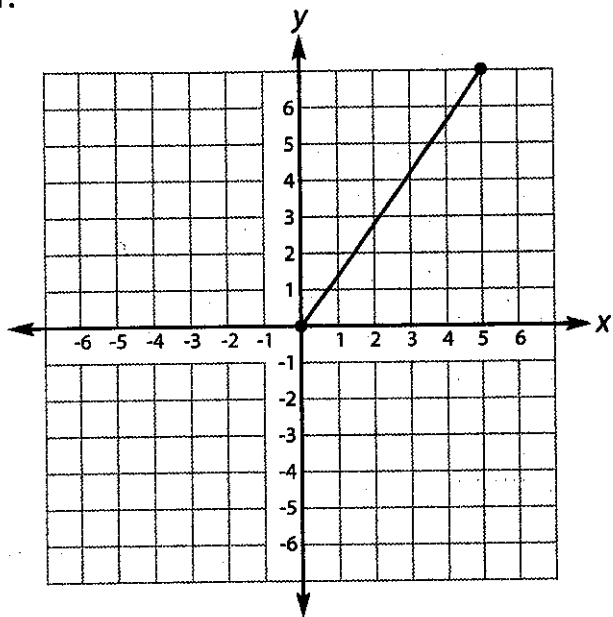
Answer: _____

Standard 8.G.8 (M–H)

Going the Distance I

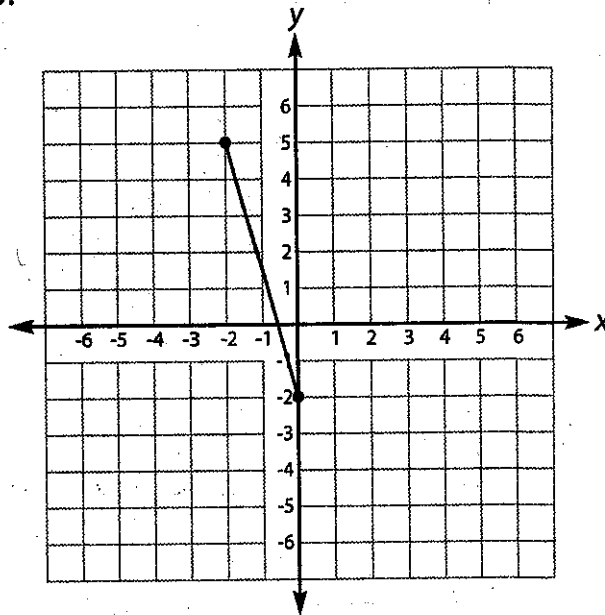
A. Directions: Determine the length of each line segment below. Round your answers to the nearest tenth. Show all of your work.

1.



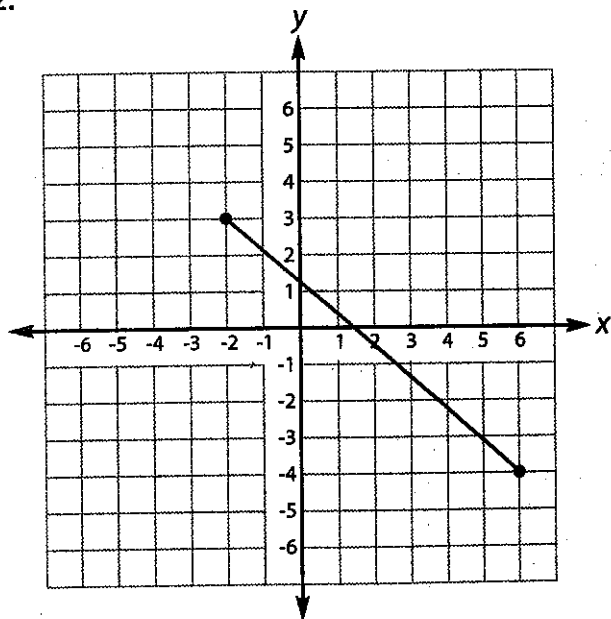
Answer: _____

3.



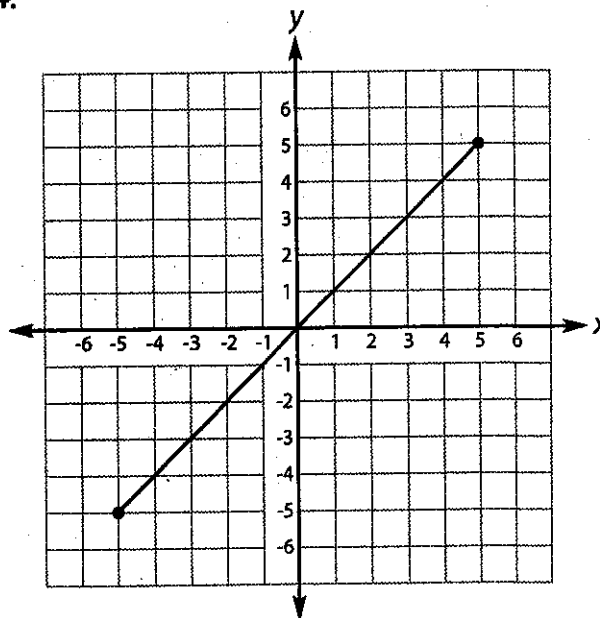
Answer: _____

2.



Answer: _____

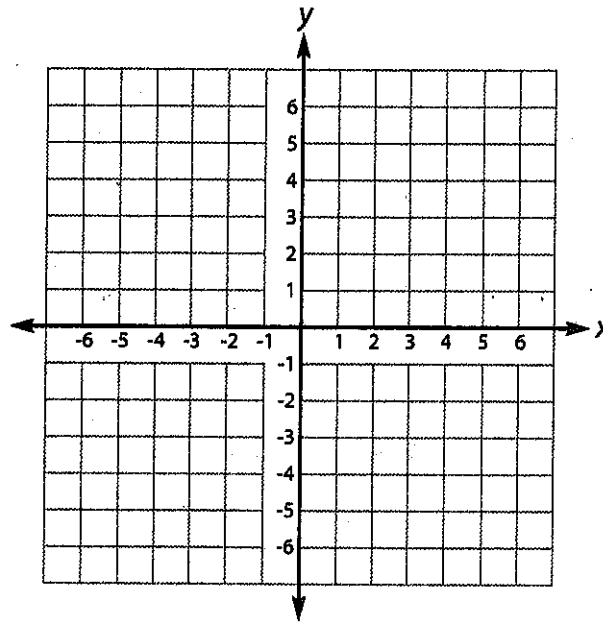
4.



Answer: _____

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B. Directions: Plot the following pairs of points on the coordinate grid below. Then, find the distance between each pair of points. Round your answers to the nearest tenth.



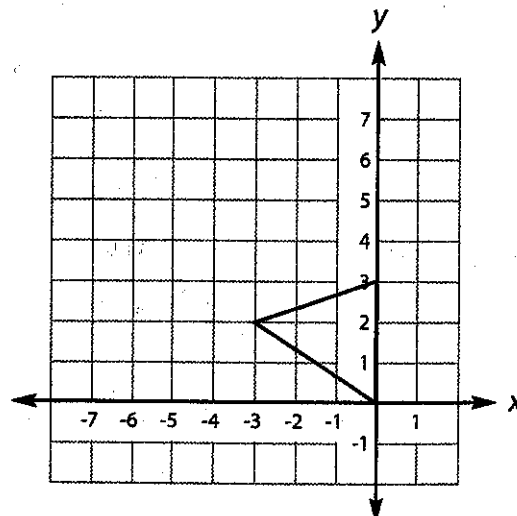
5. $(1, -3)$ and $(2, 6)$

6. $(-3, 1)$ and $(5, -4)$

7. $(0, 5)$ and $(-6, -2)$

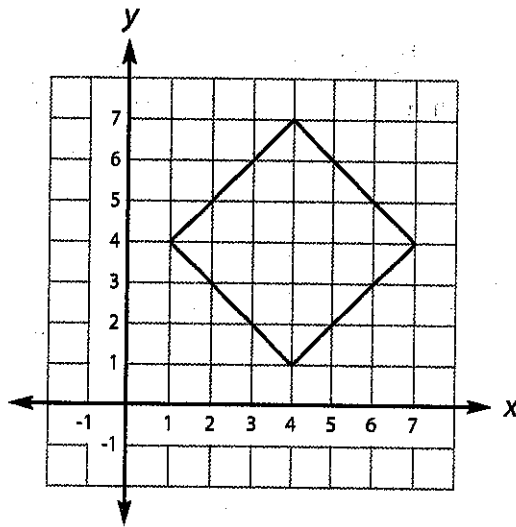
C. Directions: Complete each of the following items. Round your answers to the nearest tenth. Show all of your work.

8. What is the perimeter of the triangle below? _____



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9. What is the area of the square below? _____



10. What is the perimeter of the trapezoid below? _____

