

Grade 8 · Distance in the Coordinate Plane · Test

Common Core 8.G.B.8 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

This 45-minute test covers Common Core standard 8.G.B.8. It has 8 questions worth 20 points in total. Show every calculation, include units, and round only where the question says to. A calculator may be used for square roots.

Test information

- **Grade:** Grade 8
- **Chapter:** Distance in the Coordinate Plane
- **Common Core:** 8.G.B.8
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 3 pts; Question 5: 3 pts; Question 6: 2 pts; Question 7: 3 pts; Question 8: 3 pts)

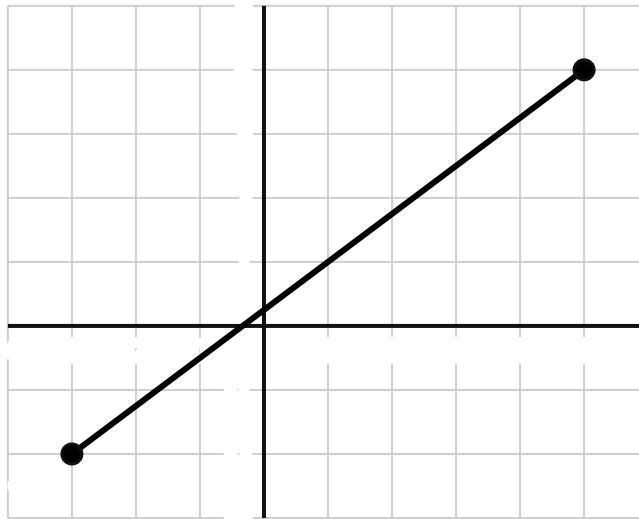
Question 1: Horizontal and vertical distance (2 points)

Find each distance.

- Between $(-4,3)$ and $(5,3)$ (1 point)
- Between $(-2,-6)$ and $(-2,8)$ (1 point)

Question 2: Distance between two points (2 points)

Find the distance between $A(-3,-2)$ and $B(5,4)$.



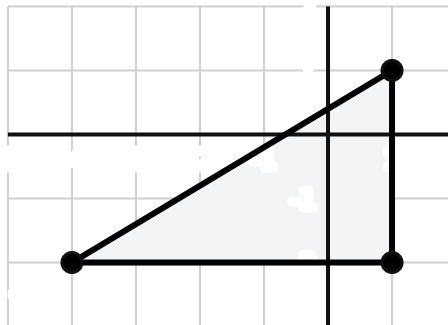
Points A and B.

Question 3: Rounded distance (2 points)

Find the distance between $(1, -4)$ and $(7, -1)$ to the nearest tenth.

Question 4: Perimeter of a triangle (3 points)

Triangle DEF has vertices $D(-4, -2)$, $E(1, -2)$ and $F(1, 1)$.

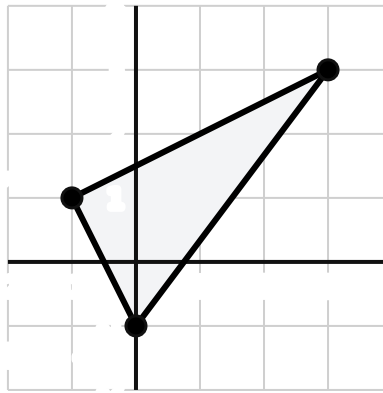


Triangle DEF.

- Find the length of each side. Round to the nearest tenth if needed. (2 points)
- Find the perimeter. (1 point)

Question 5: Is it a right triangle? (3 points)

Triangle JKL has vertices $J(-1, 1)$, $K(3, 3)$ and $L(0, -1)$. Determine whether it is a right triangle. Justify your answer with calculations.



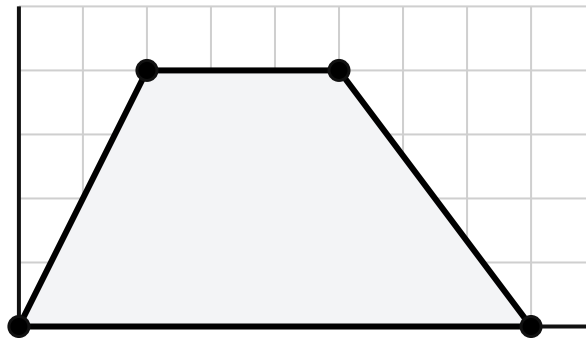
Triangle JKL.

Question 6: Missing coordinate (2 points)

The distance between $A(-2, -1)$ and $B(x, 5)$ is 10 units, and x is positive. Find x .

Question 7: Perimeter of a trapezoid (3 points)

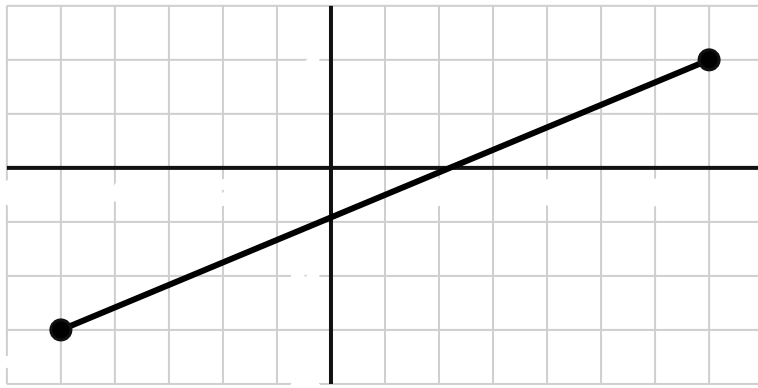
Find the perimeter of the trapezoid with vertices $(0, 0)$, $(8, 0)$, $(5, 4)$ and $(2, 4)$. Round to the nearest tenth.



A trapezoid on a grid.

Question 8: Bike to school (3 points)

On a map, Maya's house is at $H(-5, -3)$ and her school is at $S(7, 2)$. Each grid unit is 0.1 mile.



House and school.

- Find the straight-line distance in miles. (2 points)
- Maya bikes at 6.5 miles per hour. How many minutes does the trip take? (1 point)