

Name _____

Figures on the Coordinate Plane



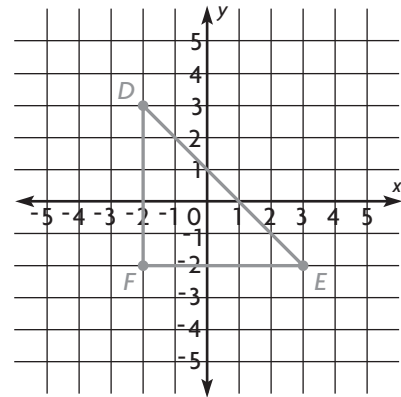
COMMON CORE STANDARD—6.G.3
Solve real-world and mathematical problems involving area, surface area, and volume.

1. The vertices of triangle DEF are $D(-2, 3)$, $E(3, -2)$, and $F(-2, -2)$. Graph the triangle, and find the length of side \overline{DF} .

Vertical distance of D from 0: $|3| = \underline{3}$ units

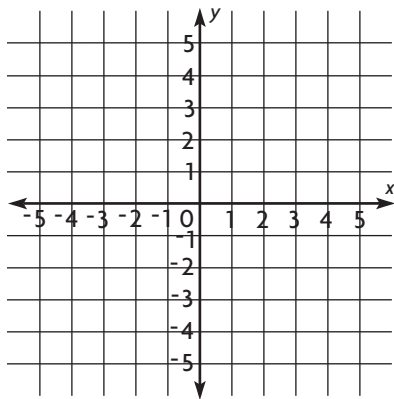
Vertical distance of F from 0: $|-2| = \underline{2}$ units

The points are in different quadrants, so add to find the distance from D to F : $\underline{3} + \underline{2} = \underline{5}$ units.



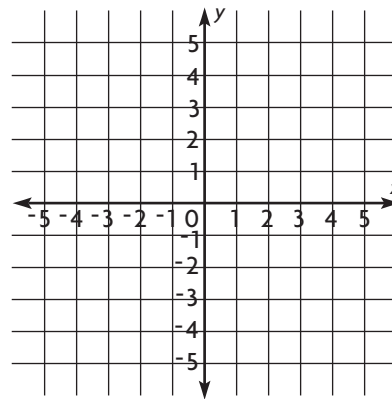
Graph the figure and find the length of side \overline{BC} .

2. $A(1, 4)$, $B(1, -2)$, $C(-3, -2)$, $D(-3, 3)$



Length of $\overline{BC} = \underline{\hspace{2cm}}$ units

3. $A(-1, 4)$, $B(5, 4)$, $C(5, 1)$, $D(-1, 1)$



Length of $\overline{BC} = \underline{\hspace{2cm}}$ units

Problem Solving



4. On a map, a city block is a square with three of its vertices at $(-4, 1)$, $(1, 1)$, and $(1, -4)$. What are the coordinates of the remaining vertex?

5. A carpenter is making a shelf in the shape of a parallelogram. She begins by drawing parallelogram $RSTU$ on a coordinate plane with vertices $R(1, 0)$, $S(-3, 0)$, and $T(-2, 3)$. What are the coordinates of vertex U ?
