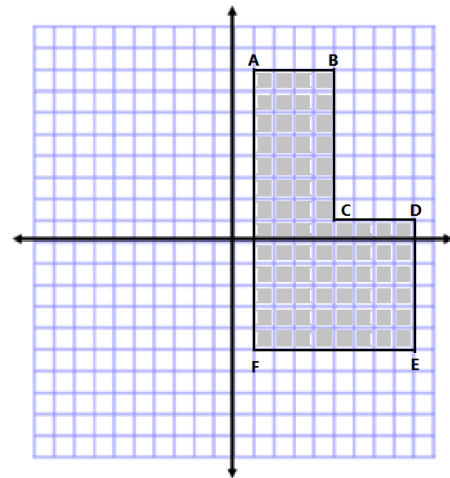


Lesson 9 & 10: Determining Area and Perimeter of Polygons on the Coordinate Plane

Classwork

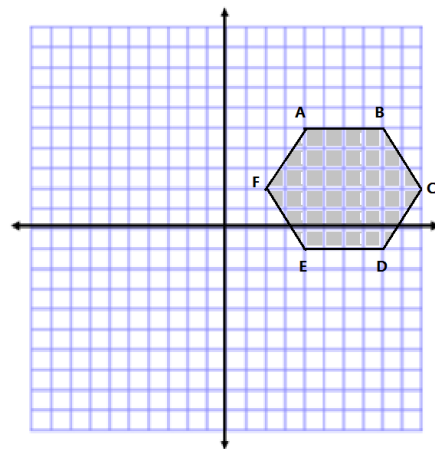
Example 1

Jasjeet has made a scale drawing of a vegetable garden she plans to make in her backyard. She needs to determine the perimeter and area to know how much fencing and dirt to purchase. Determine both the perimeter and area.



Example 2

Calculate the area of the polygon using two different methods. Write two expressions to represent the two methods, and compare the structure of the expressions.



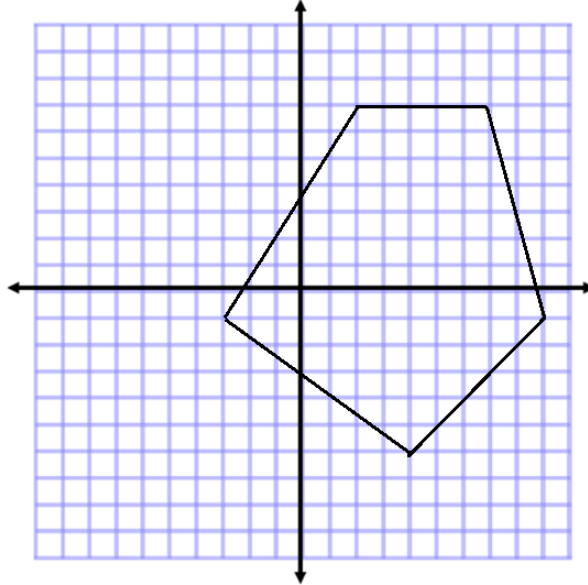
Exploratory Challenge

Estimate and predict the area and perimeter of each object. Then measure each object, and calculate both the area and perimeter of each.

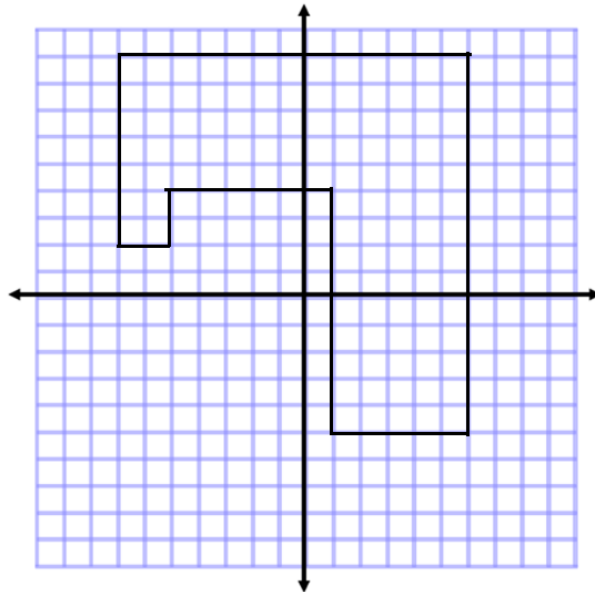
Object or Item to be Measured	Measurement Units	Precision (Measure to the Nearest)	Area Prediction (Square Units)	Area (Square Units) Write the expression and evaluate it.	Perimeter Prediction (Linear Units)	Perimeter (Linear Units)
Ex: door	feet	half foot		$6\frac{1}{2} \text{ ft.} \times 3\frac{1}{2} \text{ ft.}$ $= 22\frac{3}{4} \text{ ft}^2$		$2\left(3\frac{1}{2} \text{ ft.} + 6\frac{1}{2} \text{ ft.}\right)$ $= 20 \text{ ft.}$
Desktop						

Problem Set

- Determine the area of the polygon.



- Determine the area and perimeter of the polygon.



3. Determine the area of the polygon. Then, write an expression that could be used to determine the area.

