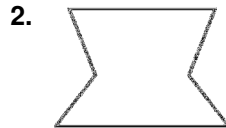


1.4

Assignment

Part A

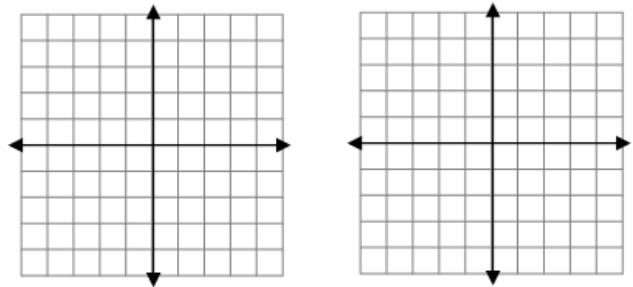
In Exercises 1 and 2, classify the polygon by the number of sides. Tell whether it is *concave* or *convex*.



In Exercises 4 and 5, find the area of the polygon with the given vertices.

4. $T(0, -2), U(3, 5), V(-3, 5)$

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



In Exercises 6–10, use the diagram to the right. Begin by finding the length of all the line segments.

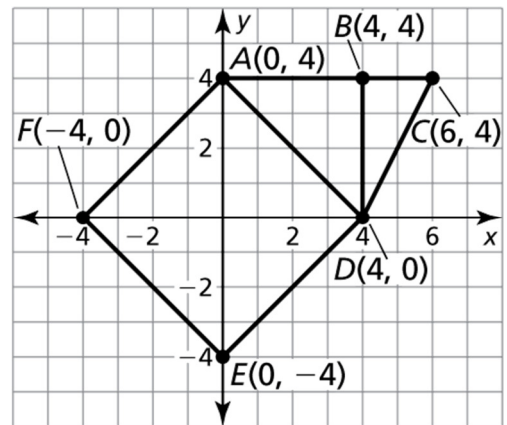
6. Find the perimeter of square $ADEF$.

7. Find the perimeter of $\triangle BCD$.

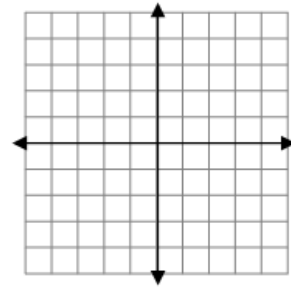
8. Find the area of square $ADEF$.

9. Find the area of $\triangle ACD$.

10. Find the area of pentagon $ACDEF$.

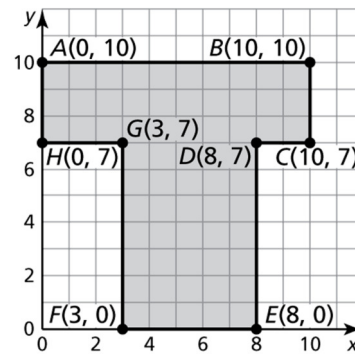


11. A rectangle has vertices $(1, 4)$, $(3, 4)$, and $(3, -3)$.
Find the remaining vertex of the rectangle.
What is the area of the rectangle?



Part B

11. You are buying tile for your bathroom floor and baseboards for your bathroom walls. In the figure, the entire polygon represents the layout of the floor. Each unit in the coordinate plane represents 1 foot.



- a. Find the area of the floor.
- b. Find the perimeter of the floor.
- c. The cost of the baseboard is \$2 per foot. The cost of the tile is \$2.50 per square foot. Find the total cost to buy tile and baseboards for your bathroom.