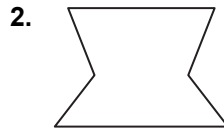


# 1.4

## Practice A

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

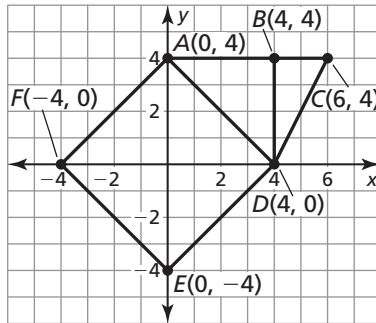


3. Find the perimeter of quadrilateral  $PQRS$  with the vertices  $P(2, 4)$ ,  $Q(2, 3)$ ,  $R(-2, -2)$ , and  $S(-2, 3)$ .

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

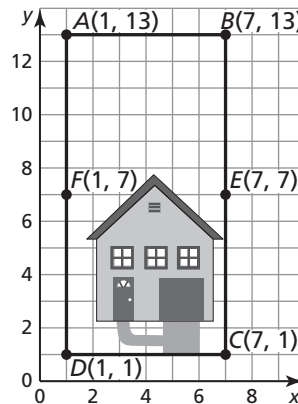
4.  $T(0, -2)$ ,  $U(3, 5)$ ,  $V(-3, 5)$                       5.  $A(-3, 3)$ ,  $B(-3, -1)$ ,  $C(4, -1)$ ,  $D(4, 3)$

In Exercises 6–10, use the diagram.



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?

12. You are installing a fence around your yard. In the figure, your yard is rectangle  $ABCD$ . Each unit in the coordinate plane represents 10 feet.

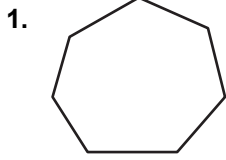


- a. What is the perimeter of your entire yard?
- b. You consider only installing a fence around your backyard represented by rectangle  $ABEF$ . What is the perimeter of your backyard?
- c. The cost of fencing is \$50 for each 6-foot section. How much do you save by only installing a fence in the backyard?

# 1.4

## Practice B

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



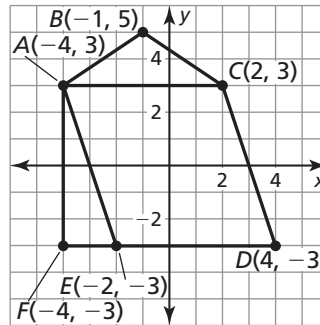
3. Find the perimeter of quadrilateral  $ABCD$  with vertices  $A(-2, -2)$ ,  $B(-1, 3)$ ,  $C(5, 3)$ , and  $D(4, -2)$ .

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

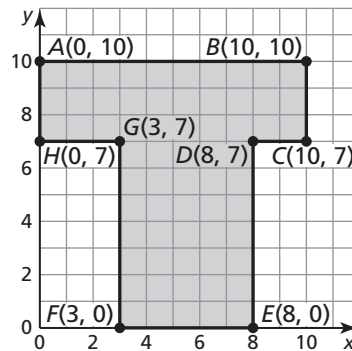
4.  $P(1, 1)$ ,  $Q(-2, 1)$ ,  $R(-1, -4)$                       5.  $A(3, 7)$ ,  $B(5, 7)$ ,  $C(3, -7)$ ,  $D(5, -7)$

In Exercises 6–10, use the diagram.

6. Find the perimeter of  $\triangle ABC$ .
7. Find the perimeter of quadrilateral  $ACDE$ .
8. Find the area of  $\triangle ABC$ .
9. Find the area of quadrilateral  $ACDE$ .
10. Find the area of pentagon  $ABCDF$ .



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.
12. You and your friend go for a walk around town. You walk 0.8 mile east and then 1.5 miles south. You then return to where you started. How far do you travel during your entire walk?