### 9.1 Area and Perimeter Geometry

1. Find the area and perimeter of a square with sides of length 12 in .
2. Find the area and perimeter of a rectangle with height of 9 cm and base of 16 cm .
3. Find the area and perimeter of a rectangle if the height is 8 and the base is 14 .
4. Find the area and perimeter of a square if the sides are 18 ft .
5. If the area of a square is $81 \mathrm{ft}^{2}$, find the perimeter.
6. If the perimeter of a square is 24 in , find the area.

Name: $\qquad$
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7. Find the area of a triangle with base of length 28 cm and height of 15 cm .
8. What is the height of a triangle with area $144 \mathrm{~m}^{2}$ and a base of 24 m ?

Use the triangle to answer the following questions:

9. Find the height of the triangle using Pythagorean Theorem.
10. Find the perimeter.
11. Find the area.

Find the area of the following shapes.
12.

13.

14.

15. A rectangle with perimeter 138 units is divided into 8 congruent rectangles as shown in the diagram below.

Find the perimeter and area of one of the 8 congruent rectangles.

16. Scott has 100 ft of fencing to use in order to enclose a 1200 square foot rectangular pig pen. The pig pen is adjacent to the barn so he only needs to form three sides of the rectangular area as shown below. What dimensions should the pen be?


