

## TOPIC 11-1: AREA & PERIMETER OF RECTANGLES, PARALLELOGRAMS, & TRIANGLES

**AREA** measures the number of square units in the interior of a figure.

**PERIMETER** measures the distance around a figure.

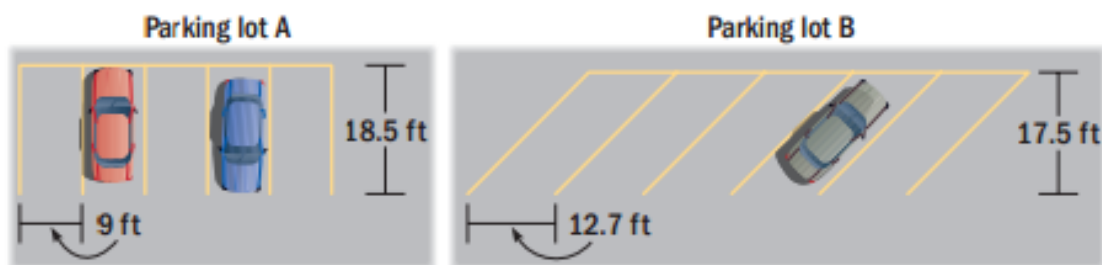
Area of a rectangle:

$$A =$$

Perimeter of a rectangle:

$$P =$$

**Parking Lot:** Two parking lots each have space for 5 cars, as shown in the diagrams below.



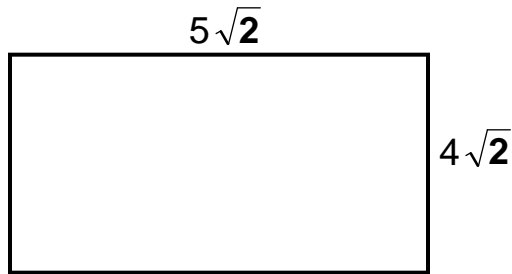
a. Find the base of each figure formed by the 5 parking spaces.

b. Find the area of each figure formed by the 5 parking spaces.

c. Compare which parking lot covers less area to park 5 cars?

**EXAMPLES:** Identify/find the indicated values for each figure.

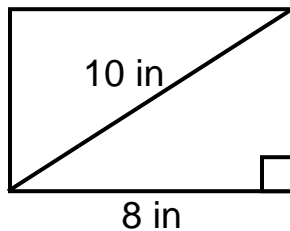
1)



Area = \_\_\_\_\_

Perimeter = \_\_\_\_\_

2)



Length = \_\_\_\_\_

Width = \_\_\_\_\_

Area = \_\_\_\_\_

Perimeter = \_\_\_\_\_

### SQUARE

Since all four sides of a square are \_\_\_\_\_, you can find the area and perimeter by:

A =

P =

**EXAMPLES:** Find the indicated measures.

3) A square with a diagonal of 6.

Length = \_\_\_\_\_

Width = \_\_\_\_\_

Area = \_\_\_\_\_

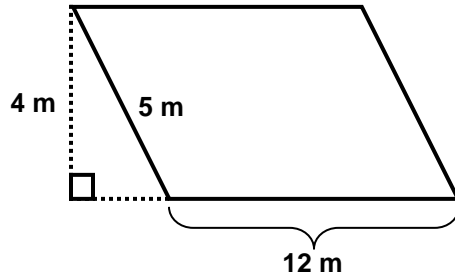
Perimeter = \_\_\_\_\_

## PARALLELOGRAMS

Area of a Parallelogram =

**EXAMPLES:** Identify/find the indicated measures.

4)



Base = \_\_\_\_\_

Height = \_\_\_\_\_

Area = \_\_\_\_\_

Perimeter = \_\_\_\_\_

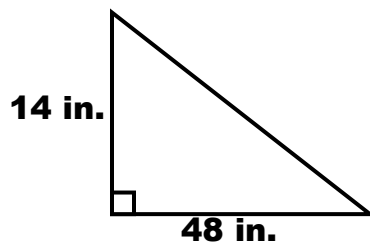
5) If the area of a parallelogram is  $456 \text{ cm}^2$  and the base is  $24 \text{ cm}$ .  
Find the height.

Height = \_\_\_\_\_

Area of a Triangle =

**EXAMPLES:** Find each of the indicated measures.

6)



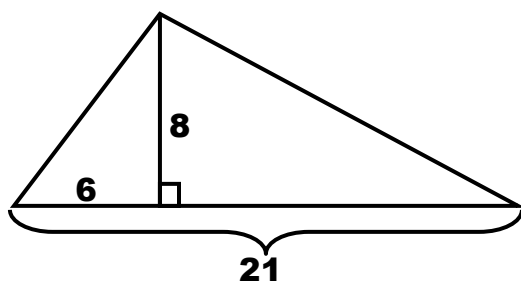
Base = \_\_\_\_\_

Height = \_\_\_\_\_

Area = \_\_\_\_\_

Perimeter = \_\_\_\_\_

7)



Base = \_\_\_\_\_  
Height = \_\_\_\_\_  
Area = \_\_\_\_\_  
Perimeter = \_\_\_\_\_

8) A triangle with area of 46 has a base of 4. Find the height.

Height = \_\_\_\_\_

## AREA & PERIMETER OF RHOMBI, KITE, and TRAPEZOID

Looking at your formula chart find:

Area of a rhombus

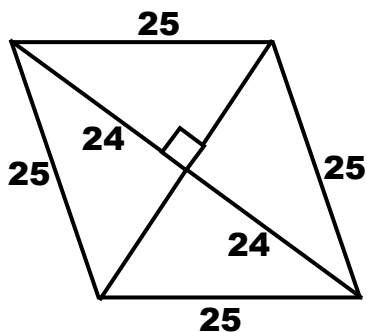
$A =$

Since all four sides of a rhombus are congruent, you can find the perimeter by:

$P =$

**EXAMPLES:** Identify/find the indicated measures for each of the following rhombi.

1)



$d_1 =$  \_\_\_\_\_

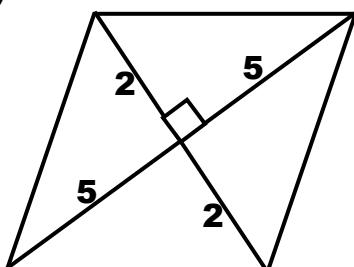
$d_2 =$  \_\_\_\_\_

Area = \_\_\_\_\_

Side Length = \_\_\_\_\_

Perimeter = \_\_\_\_\_

2)



$d_1 =$  \_\_\_\_\_

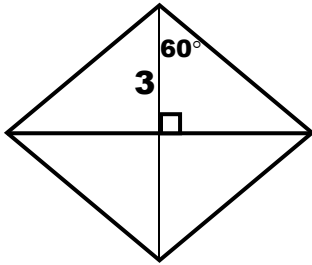
$d_2 =$  \_\_\_\_\_

Area = \_\_\_\_\_

Side Length = \_\_\_\_\_

Perimeter = \_\_\_\_\_

3)



$d_1 =$  \_\_\_\_\_

$d_2 =$  \_\_\_\_\_

Area = \_\_\_\_\_

Side Length = \_\_\_\_\_

Perimeter = \_\_\_\_\_

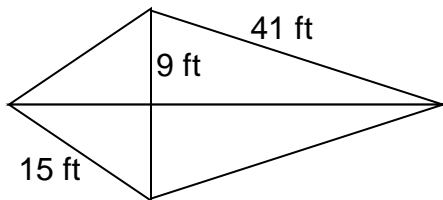
4) A rhombus has an area of 44 square centimeters. If the length of one diagonal is 11, find the length of the other.

Diagonal Length = \_\_\_\_\_

The area of a **KITE** is the same as the area of a rhombus...

$A =$

5)



$d_1 =$  \_\_\_\_\_

$d_2 =$  \_\_\_\_\_

Area = \_\_\_\_\_

Perimeter = \_\_\_\_\_

**TRAPEZOID**

To find the area of a trapezoid use...

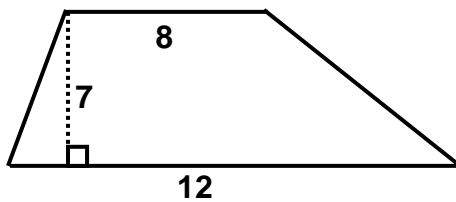
$A =$

To find the perimeter:

$P =$

**EXAMPLES:** Identify/find the indicated measures.

6)



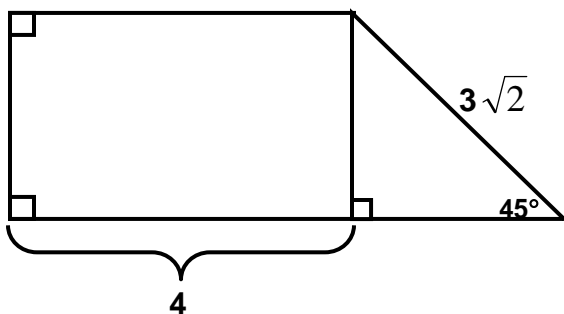
$b_1 =$  \_\_\_\_\_

$b_2 =$  \_\_\_\_\_

Height = \_\_\_\_\_

Area = \_\_\_\_\_

7)



$b_1 =$  \_\_\_\_\_

$b_2 =$  \_\_\_\_\_

Height = \_\_\_\_\_

Area = \_\_\_\_\_

Perimeter = \_\_\_\_\_