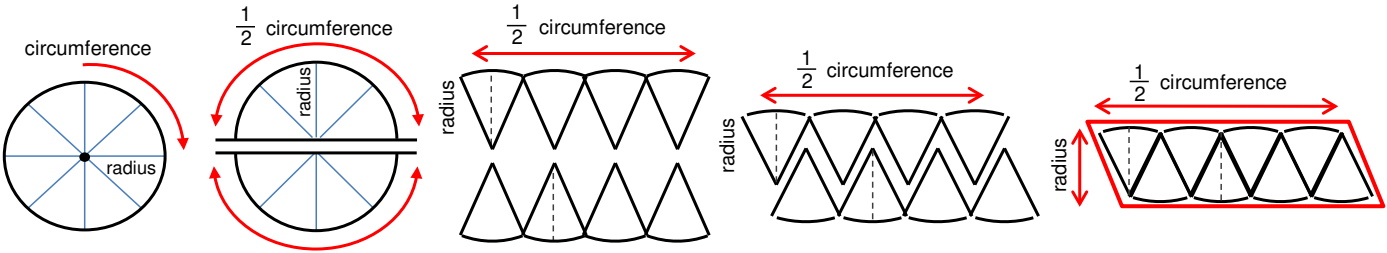# CIRCLES - AREA   *ANSWERS*

Area of a circle = π x radius x radius

TO FIND THE AREA FORMULA OF A CIRCLE, SEPARATE IT AND THEN PUT IT BACK TOGETHER TO FORM A PARALLELOGRAM. THIS WILL GIVE YOU A BASE ($\frac{1}{2}$ circumference) AND HEIGHT (radius), WHICH YOU CAN MULTIPLY TO FIND THE AREA.
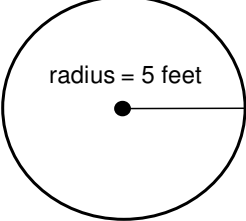

Now your turn. Use the information above and the vocabulary below to fill in the blanks.
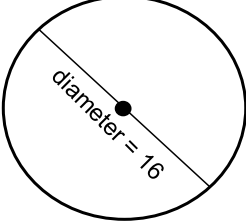
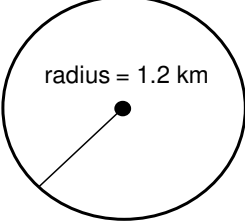Circumference π (Pi)   3.14   Area of a parallelogram   Area of a circle

1. **Area of a parallelogram**   = base x height

2. **π (Pi)**   = 3.141592653589…, which is approximately 3.14

3. **Area of a circle**   = $\frac{1}{2}$ x circumference x radius

4. **Circumference**   = 2 x π x radius, which is the same as 2 π r

5. **Area of a circle**   = $\frac{1}{2}$ x 2 x π x radius x radius

6. **Area of a circle**   = π r ^{2}
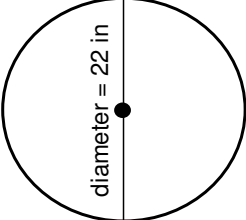
$A = \pi r^2$
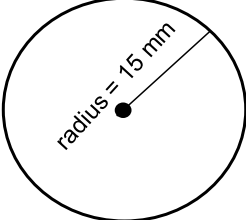
Find the area of each circle.   Use π = 3.14

1.
radius = 5 feet

Area =   **78.5**

2.
diameter = 16

Area =   **200.96**

3.
radius = 1.2 km

Area =   **4.5216**

4.
diameter = 22 in

Area =   **379.94**

5.
radius = 15 mm

Area =   **706.5**

6.
circumference = 31.4 miles

Area =   **78.5**