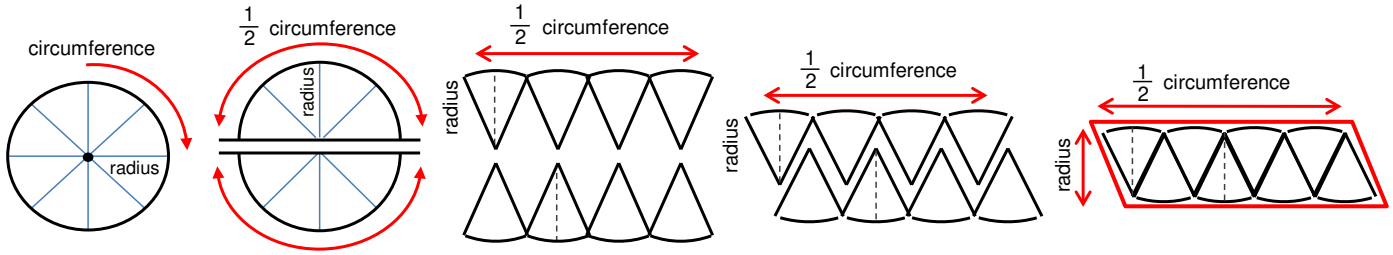
CIRCLES - AREA

ANSWERS

Area of a circle = π x radius x radius $A = \pi r^2$

TO FIND THE AREA FORMULA OF A CIRCLE, SEPARATE IT AND THEN PUT IT BACK TOGETHER TO FORM A PARALLELOGRAM.



Now your turn. Use the information above and the vocabulary below to fill in the blanks.

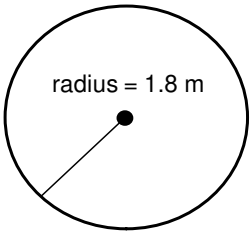
Circumference diameter π (Pi) radius 3.14 base height

1. π (pi) = 3.141592653589... or is approximately, **3.14**
2. Area of a parallelogram = **base** x **height**
3. Circumference of a circle = 2 x **π (Pi) or 3.14** x **radius**
4. Area of a circle = $\frac{1}{2}$ x **Circumference** x radius
5. Substitute the circumference formula into the area formula for a circle and simplify.

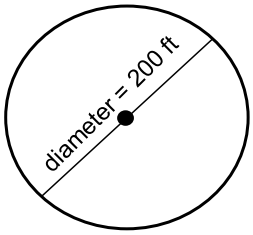
   Area of a circle = $\frac{1}{2}$ x **2** x **π (Pi)** x **radius** x radius

   Area of a circle = **π (Pi)** x (**radius**)^2

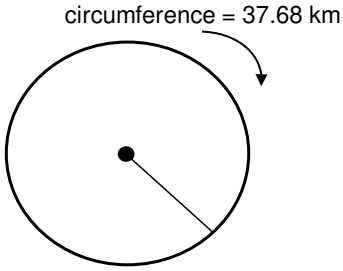
Find the area of each circle. **Use π = 3.14** $A = \pi r^2$

1. 

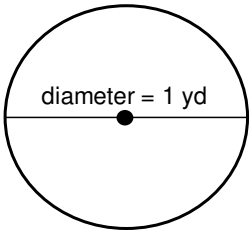
Area = 10.1736 m

2. 

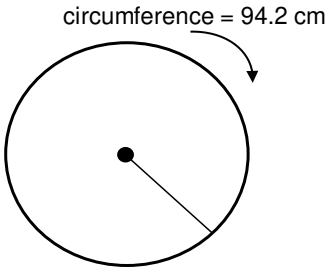
Area = 31,400 ft

3. 

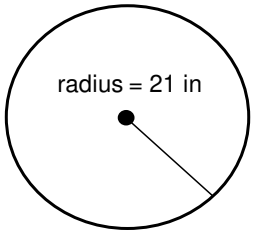
Area = 113.04 km

4. 

Area = 0.785 yd

5. 

Area = 706.5 cm

6. 

Area = 1,384.74 in