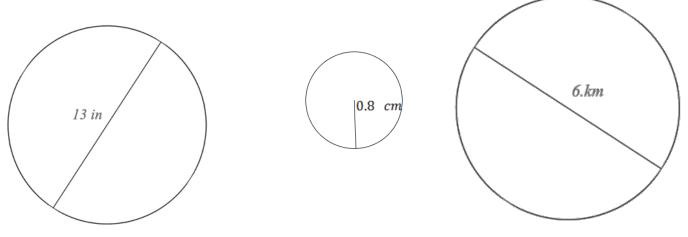
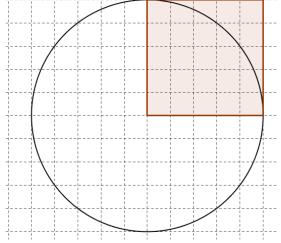
1. Calculate the area of each circle. Express your answer both exactly (in terms of pi) and approximately, to the nearest tenth of a unit.



2. By calculating the areas of the square and the circle in the diagram, determine how many times larger in area the circle is than the square.



- 3. A circle with radius 8 centimeters is enlarged so its radius is now 24 centimeters.
 - a. By what scale factor did the circumference increase? Show your work or justify your answer.
 - b. By what scale factor did the area increase? Show your work or justify your answer.

4. How many circles of radius 1" could fit in a circle with radius 5" (if you could rearrange the area of the circles of radius 1 in such a way that you completely fill in the circle of radius 5)? Justify your answer.

5. The area of 4 objects is given. Calculate the radius of two object's surface, to the nearest hundredth of a unit.



Area of a glass in a porthole $3.14 \, \text{ft}^2$



Area of side of a water tank 153.86 ft²



Area of wicker table top 28.26 ft²



Area of base of trash can 12.56 ft^2

Exit Ticket:

What I might need some more help with:

How I feel about scale factor:



Name: