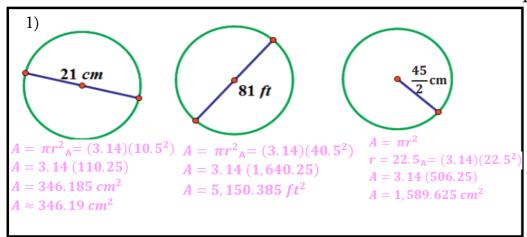
## Grade 7 M3 L13, 14, 15: Problem Set Solutions:

Find the area of each circle. Round to the nearest TENTHS place (.0)



- A circle has a diameter of 20 inches.
  - Find the exact area, and find an approximate area using  $\pi \approx 3.14$ .
- d = 20 so r = 10 $A = (3.14)(10^2)$ A = 3.14 (100) $A = 314 in^2$

 $A = \pi r^2$ 

What is the circumference of the circle using  $\pi \approx 3.14$  ?

If the diameter is 20 in., then the circumference is  $C=\pi d$  or  $C\approx 3.14\cdot 20$  in.  $\approx 62.8$  in.

- A circle has a diameter of 11 inches.
  - Find the exact area and an approximate area using  $\pi\approx 3.14$  .

$$A = \pi r^{2}$$

$$d = 11 \text{ so } r = 5.5$$

$$A = (3.14)(5.5^{2})$$

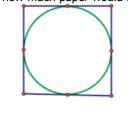
$$A = 3.14 (30.25)$$

$$A = 94.985 \text{ in}^{2}$$

What is the circumference of the circle using  $\pi \approx 3.14$ ? b.

If the diameter is 11 inches, then the circumference is C =  $\pi d$  or C  $\approx 3.14 \cdot 11$  in.  $\approx 34.54$  in.

Using the figure below, find the area of the circle. Then, if the circle was cut out of the square, how much paper would be wasted?



Circles Area  $10\,\mathrm{cm}^{-A}=~\pi r^2$ d = 10 so r = 5 $A = (3.14)(5^2)$ A = 3.14(25)

A = l \* wA = 10 \* 10 $A = 100cm^{2}$  $A = 78.5 cm^2$ 

Squares Area minus Circle Area Squares Area 100.00 78.50