4/2/12 10.3 Circumference of a Circle
10.4 Area of a Circle

P. 485

Circle: the set of all points in a plane that are the same distance from a point called a CENTER.

Radius: the distance from the center to any point on the circle's edge.

Diameter: the distance across the circle through the center point.

Circumference: distance around the circle

Pi: the ratio of any circle's circumference to its diameter is ALWAYS the same (3.14159.....)

* 3.14 or $\frac{22}{7}$

Formulas:

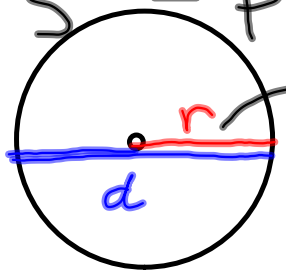
$C = \pi d$ DIAMETER

Circumference = pi x diameter

$C = 2\pi r$ RADIUS

Circumference = 2 (pi) (radius)

P. 485 – P. 486



$C = 2\pi r$

$C = 2(3.14)(6)$

① $C = \pi d$ $(3.14)(4) = 12.56$ yd.

② $C = 2\pi r$ $(2)(3.14)(3) = 18.84$m

③ $C = 2\pi r$ $(2)(3.14)(10) = 62.80$cm

P. 486 EX 3:

$C = \pi d$

$\left(\frac{22}{7}\right)(14)$ } $3.14\,(14)$

$\frac{22}{\cancel{7}_{1}} \times \frac{\cancel{14}^{2}}{1} = \frac{44}{1} = 44$

10.4 Area of a Circle

Formula: Area = pi • radius squared

$$A = \pi r^2$$

P. 491 $A = (3.14)(3^2)$

① $(3.14)(2)^2$

$$\begin{array}{r} 3.14 \\ \times \quad 4 \\ \hline 12.56 \end{array} \text{ in}^2$$

$28.26 = 28\text{cm}^2$

② $50.24\text{ft}^2 \rightarrow (3.14)(4^2) = (3.14)(4)(4)$

③ $(3.14)(10^2) = 3.14 \times 10 \times 10$

$$\begin{array}{r} \times 100 \\ \hline 314.00 \end{array} \text{ cm}^2$$

$$\begin{array}{r} 3.14 \\ \times 100 \\ \hline 314.00 \end{array}$$

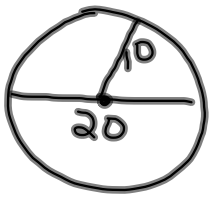
$(3.14)(10^2)$

$10 \times 10 = 100$

πr^2

$(3.14)(10^2)$

$(3.14)(100)$



In Class:

P. 487 - 488 #s 5-20

P. 494 #s 2-5 & 7-11

HW ws 10.3-10.4