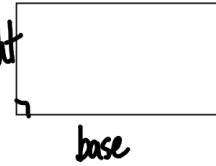


## Area Rectangle

$$A = bh$$

$$A = lw$$



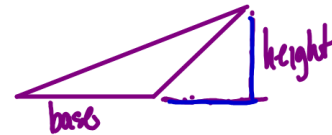
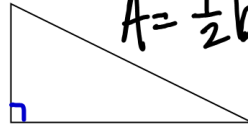
## Perimeter of Rectangle

$$P = 2l + 2w$$

$$\text{or } P = 2(l + w)$$

## Area of a Triangle

$$A = \frac{1}{2}bh$$



## Area of a Parallelogram

$$A = bh$$

## Area of a Trapezoid

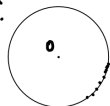
$$A = \frac{h(b_1 + b_2)}{2}$$

$$A = \frac{1}{2}h(b_1 + b_2)$$

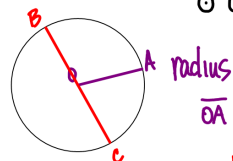
### 5.3 Circles



A set of points equidistant from a given point called the center.



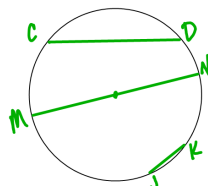
Name by center Circle O  
 $\odot O$



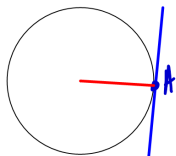
radius  
 $\overline{OA}$

$d = 2r$

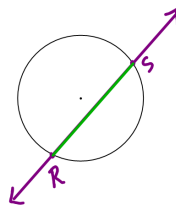
diameter  
 endpoints on circle  
 passes through the  
 center



Chord  
 endpoints on  
 circle

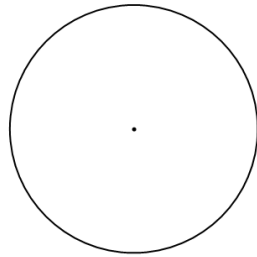


Tangent  
 line, ray, segment  
 that intersects the  
 circle at one point  
 Point A - point of  
 tangency



Secant line, ray,  
 segment that  
 intersects the circle  
 at 2 points

## Circumference of a Circle



*perimeter*

$$C = \pi d$$

$$\pi = \frac{C}{d}$$

$$\pi \approx 3.14$$

$$\pi = \frac{22}{7}$$

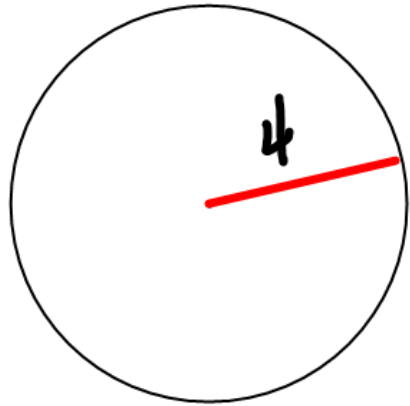
$\pi$ :

Irrational  
does not stop  
does not repeat

$$C = \pi d$$

$$C = 2\pi r$$

$$d = 2r$$



$$r = 4$$
$$d = 8$$

$$C = 2\pi r$$

$$C = \pi d$$

Exactly in terms of  $\pi$

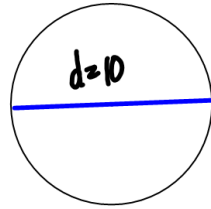
$$C = 8\pi$$

Approximate

$$C = 25.1 \text{ units}$$

# Area of a Circle

$$A = \pi r^2$$



$$r = 5$$

$$A = 25\pi \text{ units}^2 \text{ Exact}$$

$$A = 78.5 \text{ units}^2 \text{ Approx}$$

p 317

8-19 AM

$$A = 30$$

$$A = \pi r^2$$

$$30 = \pi r^2$$

$$\sqrt{9.54} = \sqrt{r^2}$$

$$3.08 = r$$

Approx

$$\frac{30}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{\frac{30}{\pi}} = \sqrt{r^2}$$

$$\sqrt{\frac{30}{\pi}} = r \text{ Exact}$$