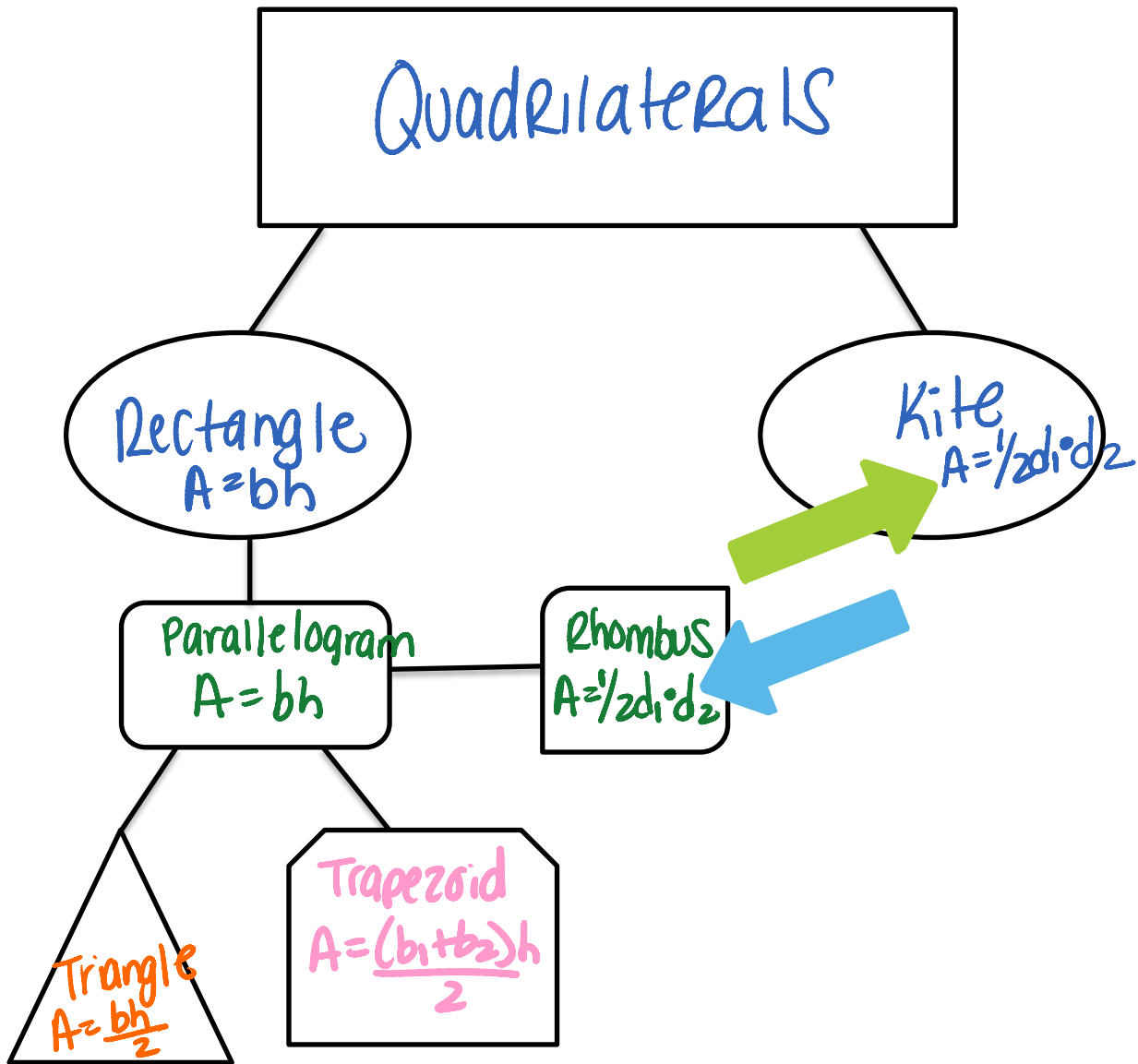


## Ch.9 Study Guide Review: Area

**Directions:** Place the following names in the flow chart below: Kite, Quadrilateral, Rectangle, Trapezoid, Triangle

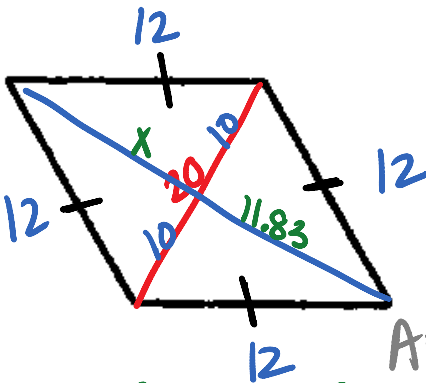
\*Classify them in terms of area.



Finding the area of Quadrilaterals					
Rectangle:	$bh$	Parallelogram:	$bh$	Triangle:	$A = \frac{1}{2}bh$
Kite:	$\frac{1}{2}d_1d_2$	Rhombus:	$\frac{1}{2}d_1d_2$	Trapezoid:	$A = \frac{(b_1+b_2) \cdot h}{2}$

$d_1=20 \quad d_2=$

Finding the area of Quadrilaterals



$$12^2 = x^2 + 10^2$$

$$144 - 100 = x^2$$

$$\sqrt{40} = \sqrt{x^2}$$

$$x = 11.83$$

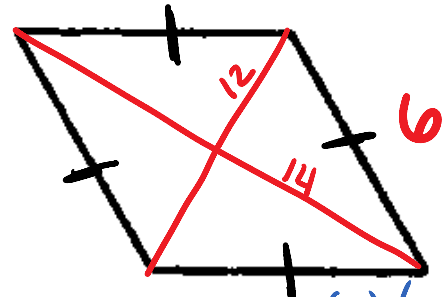
$$A = \frac{1}{2}(20)(23.66)$$

$$A = 236.6 \text{ units}^2$$

$d_1=10$   
 $d_2=16$

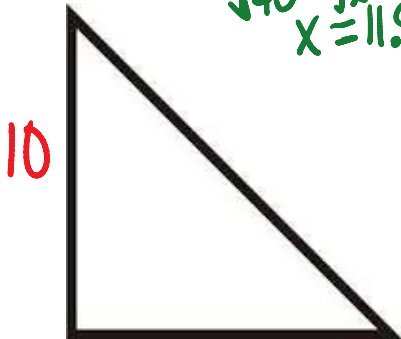
$$A = \frac{1}{2}(10)(16)$$

$$A = 80 \text{ units}^2$$



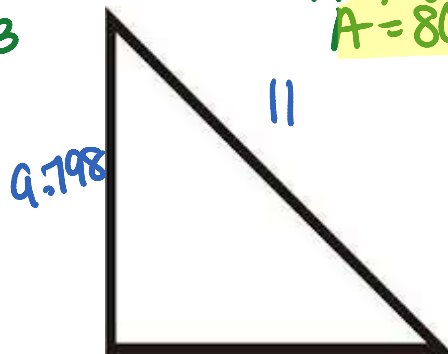
$$A = \frac{1}{2}(14)(12)$$

$$A = 84 \text{ units}^2$$



$$A = \frac{1}{2}(10)(14)$$

$$A = 70 \text{ units}^2$$



$$x^2 + 5^2 = 11^2$$

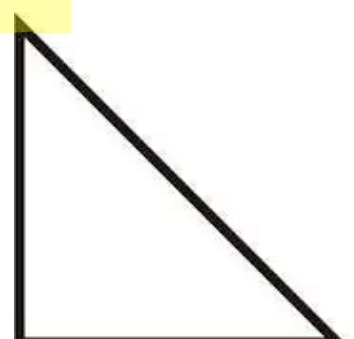
$$x^2 = 121 - 25$$

$$\sqrt{x^2} = \sqrt{96}$$

$$x = 9.798$$

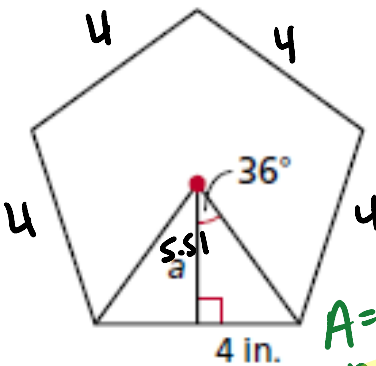
$$A = \frac{1}{2}(5)(9.798)$$

$$A = 24.495 \text{ units}^2$$



$$A = \frac{1}{2}(3)(4)$$

$$A = 6 \text{ units}^2$$

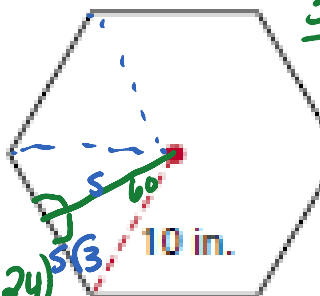


$$\tan 36 = \frac{4}{a}$$

$$a = \frac{4}{\tan 36} = 5.51$$

$$A = \frac{1}{2}(5.51)(24)$$

$$A = 66.12 \text{ units}^2$$



$360/6 = 60^\circ$

$$A = \frac{1}{2}(5)(10\sqrt{3})$$

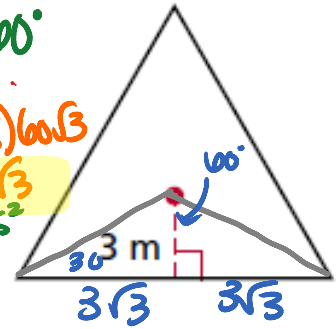
$$A = 150\sqrt{3} \text{ units}^2$$

$6(10\sqrt{3}) = 60\sqrt{3}$

$360/6 = 60^\circ$

$$A = \frac{1}{2}(5)(10\sqrt{3})$$

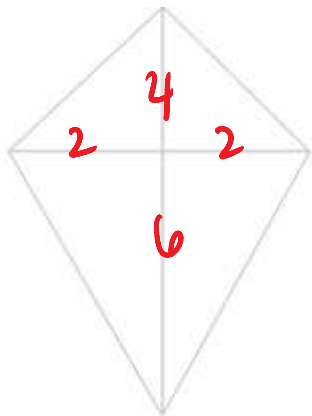
$$A = 150\sqrt{3} \text{ units}^2$$



$$3(6\sqrt{3}) = 18\sqrt{3}$$

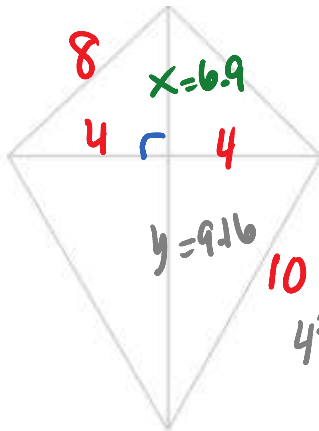
$$A = \frac{1}{2}(3)(18\sqrt{3})$$

$$A = 27\sqrt{3} \text{ units}^2$$



$$A = \frac{1}{2}(10)(4)$$

$$A = 20 \text{ units}^2$$



$$4^2 + x^2 = 8^2$$

$$16 + x^2 = 64$$

$$\sqrt{x^2} = \sqrt{48}$$

$$x = 6.9$$

$$4^2 + y^2 = 10^2$$

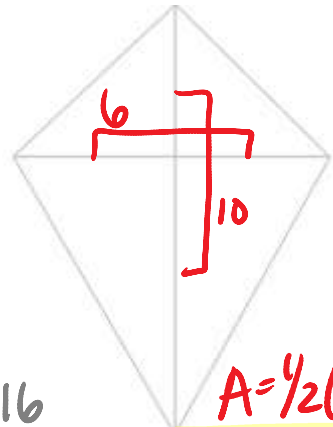
$$y^2 = 100 - 16$$

$$\sqrt{y^2} = \sqrt{84}$$

$$y = 9.16$$

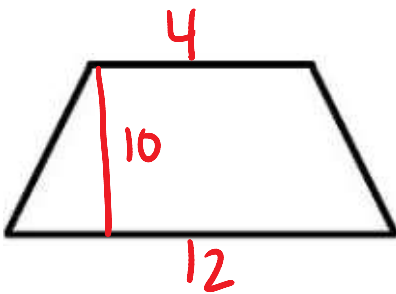
$$A = \frac{1}{2}(8)(16.06)$$

$$A = 64.24 \text{ units}^2$$



$$A = \frac{1}{2}(6)(10)$$

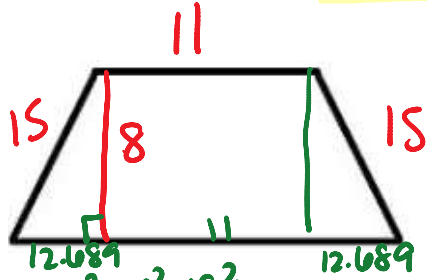
$$A = 30 \text{ units}^2$$



$$A = \frac{1}{2}(4+12) \cdot 10$$

$$A = \frac{1}{2}(16) \cdot 10$$

$$A = 80 \text{ units}^2$$



$$8^2 + x^2 = 15^2$$

$$x^2 = 225 - 64$$

$$x^2 = 161$$

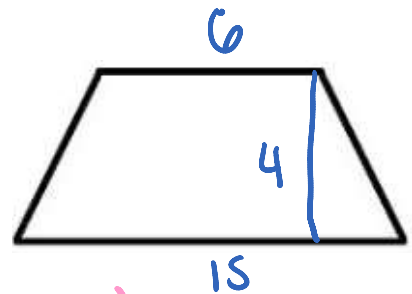
$$x = 12.689$$

$$b_2 = 11 + 12.689 + 12.689$$

$$= 36.378$$

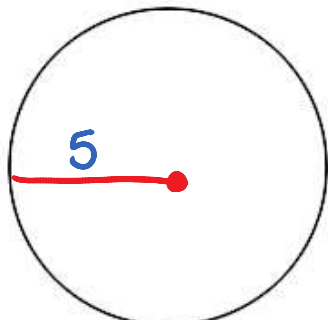
$$A = \frac{(11+36.378) \cdot 8}{2}$$

$$A = 189.52 \text{ units}^2$$



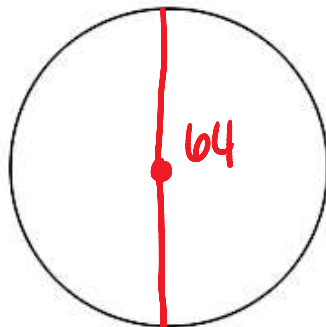
$$A = \frac{1}{2}(6+15) \cdot 4$$

$$A = 42 \text{ units}^2$$



$$A = \pi(r)^2$$

$$A = 25\pi \text{ units}$$

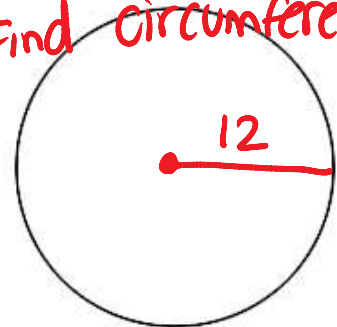


$$r = 32$$

$$A = (32)^2 \pi$$

$$A = 1024\pi \text{ units}^2$$

Find circumference



$$A = 2\pi r$$

$$A = 2\pi(12)$$

$$A = 24\pi \text{ units}$$