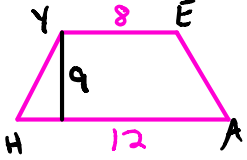


16.3 PRACTICE

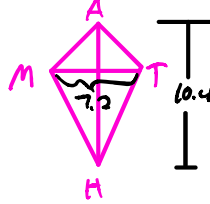
Draw the following. Find the area. Label your answer!

1. $\triangle YEAH$ with a base of 12 ft, a base of 8 ft and altitude of 9 ft.



$$\begin{aligned} A_{\text{trap}} &= \frac{1}{2}(b_1 + b_2)h \\ &= \frac{1}{2}(8 + 12)9 \\ &= \frac{1}{2}(20)9 \\ A &= 90 \text{ ft}^2 \end{aligned}$$

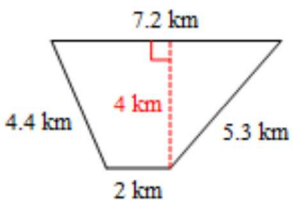
2. Kite $MATH$ with a diagonal of 7.2 cm and a diagonal of 10.4 cm.



$$\begin{aligned} A_{\text{kite}} &= \frac{1}{2}d_1d_2 \\ &= \frac{1}{2}(7.2)(10.4) \\ A &= 37.44 \text{ cm}^2 \end{aligned}$$

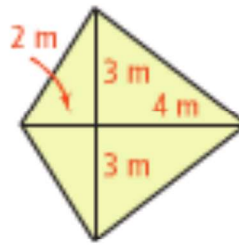
Find the area of each. Label your answer!

3. TRAPEZOID



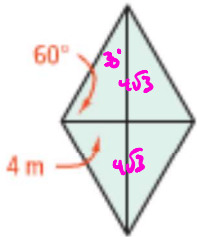
$$\begin{aligned} A_{\text{trap}} &= \frac{1}{2}(b_1 + b_2)h \\ &= \frac{1}{2}(7.2 + 2)4 \\ &= \frac{1}{2}(9.2)4 \\ A &= 18.4 \text{ km}^2 \end{aligned}$$

4. KITE



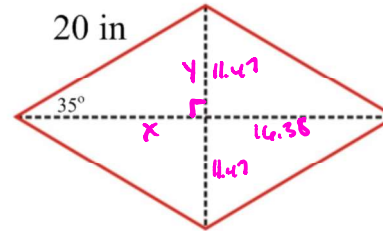
$$\begin{aligned} A_{\text{kite}} &= \frac{1}{2}d_1d_2 \\ &= \frac{1}{2}(6)(6) \\ A_{\text{kite}} &= 18 \text{ m}^2 \end{aligned}$$

5. RHOMBUS



$$\begin{aligned} A_{\text{rhomb}} &= \frac{1}{2}d_1d_2 \\ &= \frac{1}{2}(8)(8\sqrt{3}) \\ A_{\text{rhomb}} &= 32\sqrt{3} \text{ m}^2 \end{aligned}$$

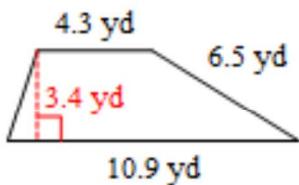
6. RHOMBUS



$$\begin{aligned} A_{\text{rhomb}} &= \frac{1}{2}d_1d_2 \\ &= \frac{1}{2}(22.84)(32.76) \\ A_{\text{rhomb}} &= 375.76 \text{ in}^2 \end{aligned}$$

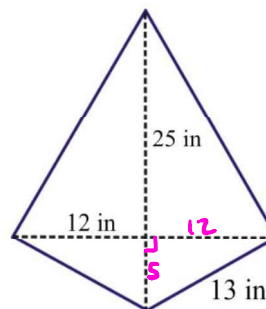
$\sin(35^\circ) = \frac{y}{20}$	$\cos(35^\circ) = \frac{x}{20}$
$20 \sin(35^\circ) = y$	$20 \cos(35^\circ) = x$
$11.47 = y$	$16.38 = x$
$d_1 = 2(11.47)$	$d_2 = 16.38(2)$
$d_1 = 22.84$	$d_2 = 32.76$

7. TRAPEZOID



$$\begin{aligned} A_{\text{trap}} &= \frac{1}{2}(b_1 + b_2)h \\ &= \frac{1}{2}(4.3 + 10.9)(3.4) \\ &= \frac{1}{2}(15.2)(3.4) \\ A_{\text{trap}} &= 25.84 \text{ yd}^2 \end{aligned}$$

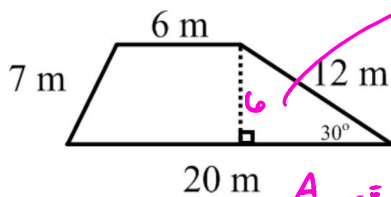
8. KITE



$$\begin{aligned} A_{\text{kite}} &= \frac{1}{2}d_1d_2 \\ &= \frac{1}{2}(30)(24) \\ A_{\text{kite}} &= 360 \text{ in}^2 \end{aligned}$$

PT
5-12-13

9. TRAPEZOID



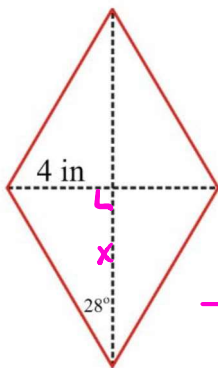
$$A_{\text{trap}} = \frac{1}{2}(b_1 + b_2)h$$

$$= \frac{1}{2}(20 + 6)6$$

$$= \frac{1}{2}(26)6$$

$$A_{\text{trap}} = 78 \text{ m}^2$$

10. RHOMBUS



$$\tan(28^\circ) = \frac{4}{x}$$

$$x \tan(28^\circ) = 4$$

$$x = \frac{4}{\tan 28^\circ}$$

$$x \approx 7.52$$

$$d_1 = 7.52(2)$$

$$d_1 = 15.04$$

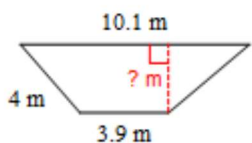
$$A_{\text{rhombus}} = \frac{1}{2}d_1 d_2$$

$$= \frac{1}{2}(15.04)(8)$$

$$A_{\text{rhombus}} = 60.16 \text{ in}^2$$

Find the missing measurement. Round to the nearest tenth.

11. TRAPEZOID



Area = 21 m²

$$A_{\text{trap}} = \frac{1}{2}(b_1 + b_2)h$$

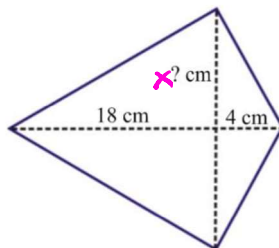
$$21 = \frac{1}{2}(10.1 + 3.9)h$$

$$21 = \frac{1}{2}(14)h$$

$$21 = 7h$$

$$3m = h$$

12. KITE



Area = 182 cm²

$$A_{\text{kite}} = \frac{1}{2}d_1 d_2$$

$$182 = \frac{1}{2}(22)d_2$$

$$182 = 11d_2$$

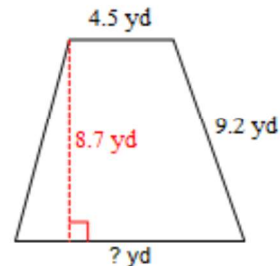
$$16.55 \approx d_2$$

$$x = \frac{1}{2}d_2$$

$$x = \frac{1}{2}(16.55)$$

$$x = 8.27 \text{ cm}$$

13. TRAPEZOID



Area = 62.6 yd²

$$A_{\text{trap}} = \frac{1}{2}(b_1 + b_2)h$$

$$62.6 = \frac{1}{2}(4.5 + b_2)(8.7)$$

$$125.2 = (4.5 + b_2)8.7$$

$$\frac{125.2}{8.7} = 4.5 + b_2$$

$$\frac{125.2}{8.7} - 4.5 = b_2$$

$$9.89 \text{ yd} = b_2$$

ALGEBRA REVIEW

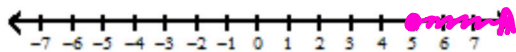
SOLVE

$$5(3 - 2x) \leq -35$$

$$3 - 2x \leq -7$$

$$-2x \leq -10$$

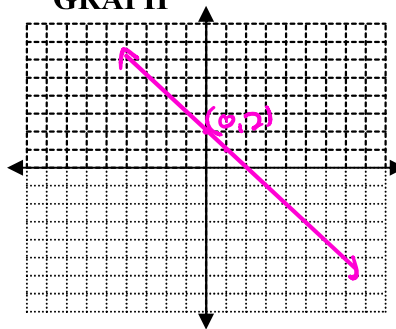
$$x \geq 5$$



GRAPH

$$3y = 6 - 3x$$

$$y = -x + 2$$



MULTIPLY

$$(2x - 5)(3x - 3)$$

$$= 6x^2 - 15x - 6x + 15$$

$$= 6x^2 - 21x + 15$$

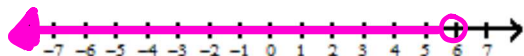
SOLVE

$$4x + 5 > -19 + 8x$$

$$5 > -19 + 4x$$

$$24 > 4x$$

$$6 > x$$

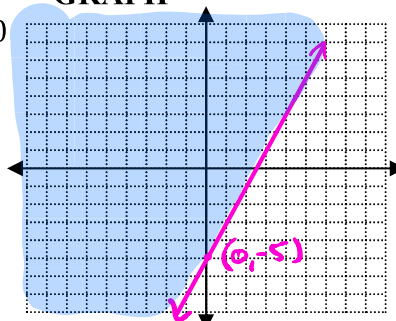


GRAPH

$$4x - 2y < 10$$

$$-2y < -4x + 10$$

$$y > 2x - 5$$



FACTOR

$$2x^2 - 7x + 3$$

$$= \frac{(2x - 6)(2x - 1)}{2}$$

$$= \frac{2(x - 3)(2x - 1)}{2}$$

$$= (x - 3)(2x - 1)$$