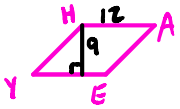
16.2 PRACTICE

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

1. ▱ *YEAH* with base of 12 ft and height of 9 ft.

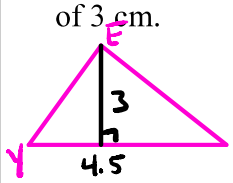


$A_{\square} = bh$

$A_{\square} = (12)(9)$

$A_{\square} = 96\ ft^2$

2. ΔYES with base 4.5 cm and altitude of 3 cm.

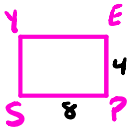


$A_{\triangle} = \frac{1}{2}bh$

$= \frac{1}{2}(4.5)(3)$

$A_{\triangle} = 6.75\ cm^2$

3. 4ft x 8ft rectangle *YEPS*.



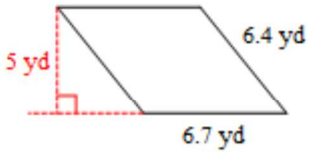
$A_{\square} = bh$

$= (8)(4)$

$A_{\square} = 32\ ft^2$

Find the area of each. Label you answer!

4.

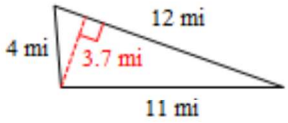


$A_{\square} = bh$

$= (6.7)(5)$

$A_{\square} = 33.5\ yd^2$

5.

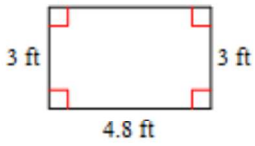


$A_{\triangle} = \frac{1}{2}bh$

$= \frac{1}{2}(12)(3.7)$

$A_{\triangle} = 22.2\ mi^2$

6.

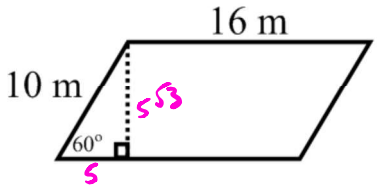


$A_{\square} = bh$

$= (4.8)(3)$

$A_{\square} = 14.4\ ft^2$

7.

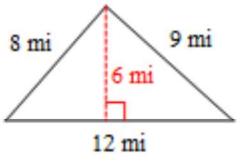


$A_{\square} = bh$

$= 16(5\sqrt{3})$

$A_{\square} = 80\sqrt{3}\ m^2$

8.

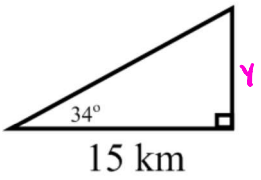


$A_{\triangle} = \frac{1}{2}bh$

$= \frac{1}{2}(12)(6)$

$A_{\triangle} = 36\ mi^2$

9.



$\tan(34°) = \frac{Y}{15}$

$15\tan(34°) = Y$

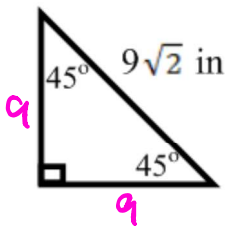
$10.12 = Y$

$A_{\triangle} = \frac{1}{2}bh$

$= \frac{1}{2}(15)(10.12)$

$A_{\triangle} = 75.9\ km^2$

10.

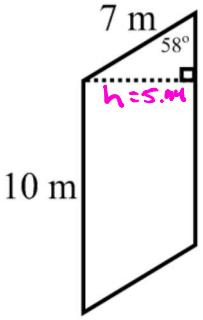


$A_{\triangle} = \frac{1}{2}bh$

$= \frac{1}{2}(9)(9)$

$A_{\triangle} = 40.5\ in^2$

11.



$\sin(58°) = \frac{h}{7}$

$7\sin(58°) = h$

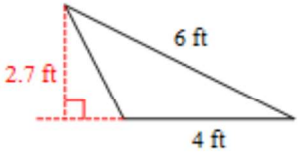
$5.94 = h$

$A_{\square} = bh$

$= \frac{1}{2}(10)(5.94)$

$A_{\square} = 59.4\ m^2$

12.



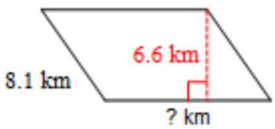
$A_{\triangle} = \frac{1}{2}bh$

$= \frac{1}{2}(4)(2.7)$

$A_{\triangle} = 5.4\ ft^2$

Find the missing measurement. Round to the nearest tenth.

13.



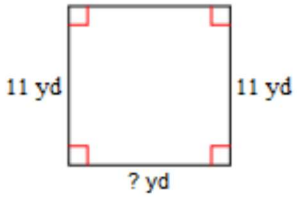
Area = 79.2 km²

$A_{\square} = b \cdot h$

$79.2 = b \cdot (6.6)$

$12 km = b$

14.



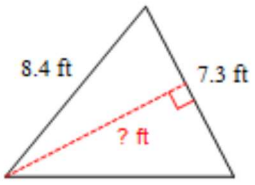
Area = 123.2 yd²

$A_{\square} = b \cdot h$

$123.2 = b(11)$

$11.2 yd = b$

15.



Area = 28.1 ft²

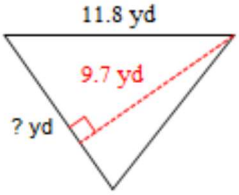
$A_{\triangle} = \frac{1}{2}bh$

$28.1 = \frac{1}{2}(7.3)h$

$28.1 = 3.65h$

$7.7 ft = h$

16.



Area = 47 yd²

$A_{\triangle} = \frac{1}{2}bh$

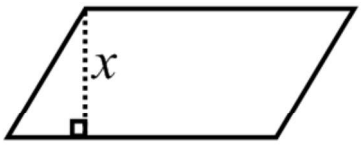
$47 = \frac{1}{2}b(9.7)$

$47 = 4.85b$

$9.69 yd = b$

Find *x*.

17.



Area = 40 ft²

$A_{\square} = b \cdot h$

$40 = (x+3)x$

$0 = x^2 + 3x - 40$

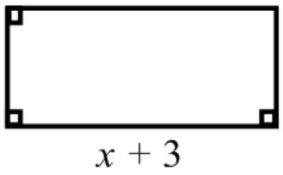
$0 = (x+8)(x-5)$

$0 = x+8$ | $0 = x-5$

$-8 = x$ | $5 = x$

makes no sense. | $x = 5 ft$

18.



Area = 65 ft²

$A_{\square} = b \cdot h$

$65 = (x+3)(x-5)$

$65 = x^2 - 2x - 15$

$0 = x^2 - 2x - 80$

$0 = (x-10)(x+8)$

$0 = x-10$ | $0 = x+8$

$10 = x$ | $-8 = x$

$x = 10 ft$ | makes no sense

ALGEBRA REVIEW

SOLVE

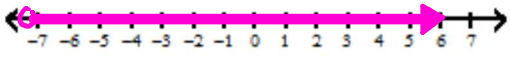
$2(3 - 2x) < 35$

$6 - 4x < 35$

$-4x < 29$

$x > \frac{29}{-4}$

$x > -7.25$

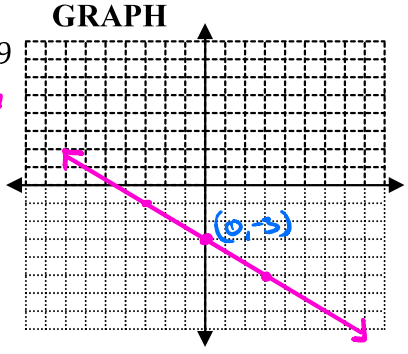


GRAPH

$2x + 3y = -9$

$3y = -2x - 9$

$y = -\frac{2}{3}x - 3$



MULTIPLY

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

$= 2x^2 - 5x + 6x - 15$

$= 2x^2 + x - 15$

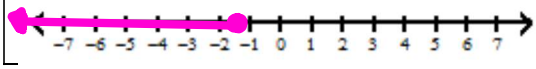
SOLVE

$4x + 5 \geq 8 + 6x$

$5 \geq 8 + 2x$

$-3 \geq 2x$

$-\frac{3}{2} \geq x$

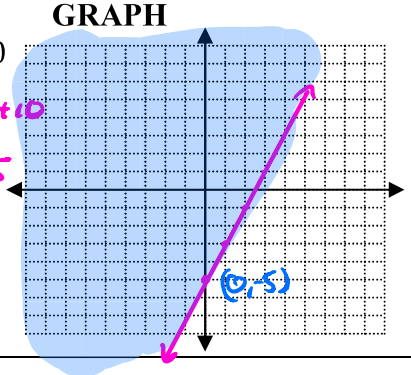


GRAPH

$4x - 2y \leq 10$

$-2y \leq -4x + 10$

$y \geq 2x - 5$



FACTOR

$6x^2 - 7x - 5$

$= \frac{(6x+3)(6x-10)}{6}$ Australian method

$= \frac{3(2x+1) \cdot 2(3x-5)}{6}$

$= (2x+1)(3x-5)$