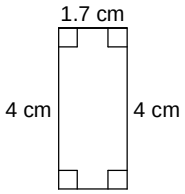
Math 9: Unit 4 Measurement Name_____

Homework #1 - Perimeter and Area of 2D Figures

Date_____ 5A____

Find the perimeter (if possible) and area of each.

1)

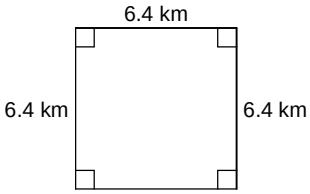


$\ell = 4$
$w = 1.7$

$P = 11.4\text{cm}$

$A = 6.8\text{cm}^2$

2)

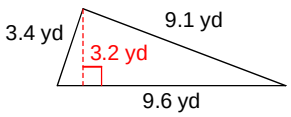


$\ell = 6.4$
$w = 6.4$

$P = 25.6\text{km}$

$A = 40.96\text{km}^2$

3)

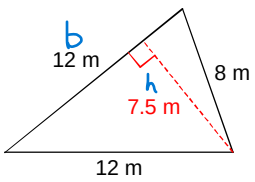


$b = 9.6$
$h = 3.2$

$P = 22.1\text{yd}$

$A = 15.36\text{yd}^2$

4)

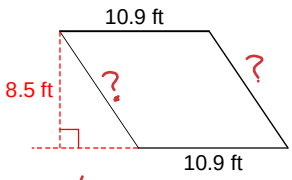


$h = 7.5$
$b = 12$

$P = 32\text{m}$

$A = 45\text{m}^2$

5)

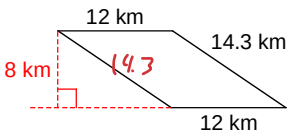


$b = 10.9$
$h = 8.5$

No perimeter.

$A = 92.65\text{ft}^2$

6)

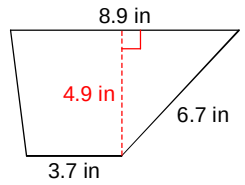


$b = 12$
$h = 8$

$P = 52.6\text{km}$

$A = 96\text{km}^2$

7)

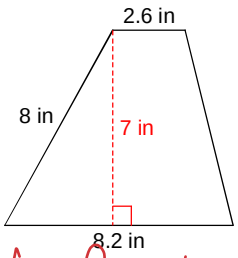


$a = 8.9$
$b = 3.7$
$h = 4.9$

No Perimeter

$A = 30.87 in^2$

8)



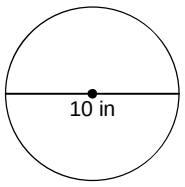
$a = 2.6$
$b = 8.2$
$h = 7$

No Perimeter.

$A = 37.8 in^2$

Find the cirumference and area of each circle. Round your answer to the nearest tenth.

9)

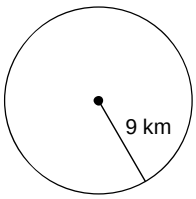


$r = 5$

$C = 31.4 in$

$A = 78.5 in^2$

10)



$r = 9$

$C = 56.52 km$

$A = 254.34 km^2$

Use the appropriate formula to solve for the missing measurement.

11) A rectangle has a length of 432mm and an area of 657,504 mm squared. What is the width of the rectabgle?

$A = lw$

$\frac{657504}{432} = \frac{432w}{432}$

$1552 mm = w$

12) A trapezoid has an area of $150 m^2$. It has a height of 10m and the top line is 6m. What is the length of the base (bottom line)?

A, a, h, b

$A = \frac{(a+b)h}{2}$

$150 = \frac{(6+b)(10)}{2}$

$\frac{150}{5} = \frac{(6+b)(5)}{5}$

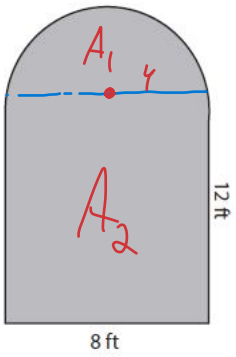
$30 = 6 + b$

$-6 \quad -6$

$24 m = b$

Calculate the area of the compound shapes:

13.

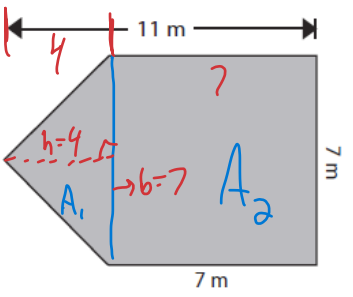


$A_1 = \frac{\pi r^2}{2}$ $\quad A_2 = lw$

$A_1 = 25.12$ $\quad A_2 = 96$

$\therefore A = 121.12\ ft^2$

14.



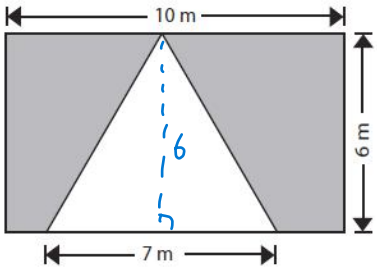
$A_1 = \frac{bh}{2}$ $\quad A_2 = lw$

$A_1 = 14$ $\quad A_2 = 49$

$\therefore A = 63 m^2$

Calculate the area of the shaded regions.

15.



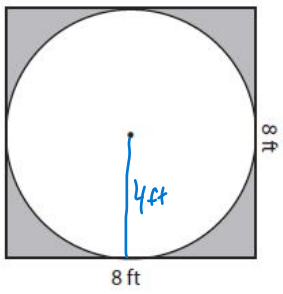
$A_\triangle = \frac{bh}{2}$ $\quad A_\square = lw$

$A_\triangle = 21$ $\quad A_\square = 60$

$\therefore A = 60 - 21$

$A = 39 m^2$

16



$A_\square = lw$ $\quad A_o = \pi r^2$

$A_\square = 64$ $\quad A_o = 50.24$

$\therefore A = 13.76 ft^2$