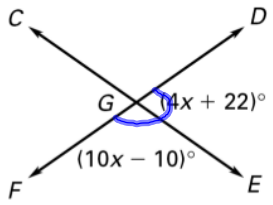
Bellwork:



#4 $m\angle FGE + m\angle DGE = 180$

$10x - 10 + 4x + 22 = 180$

$14x + 12 = 180$

$-12 \quad -12$

$\frac{14x}{14} = \frac{168}{14}$

$x = 12$

1. Are angles $\angle CGF$ and $\angle FGE$ vertical angles?

2. Are angles $\angle CGF$ and $\angle FGE$ a linear pair? YES

3. If $m\angle CGD = 120°$, find $m\angle CGF$. $180 - 120 = 60°$

4. Find the value of x. $x = 12$

$\angle A$ and $\angle B$ are complementary. Find $m\angle A$ and $m\angle B$.

5. $m\angle A = 7x + 1, m\angle B = 4x + 1$

$m\angle A + m\angle B = 90$

$7x + 1 + 4x + 1 = 90$

$11x + 2 = 90$

$-2 \quad -2$

$\frac{11x}{11} = \frac{88}{11}$

$x = 8$

$= 7(8) + 1 \qquad = 4(8) + 1$

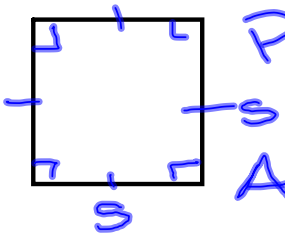
$m\angle A = 57 \qquad m\angle B = 33$

1.7 Introduction to Perimeter, Circumference and Area

Common Formulas:

$P = w + w + l + l$

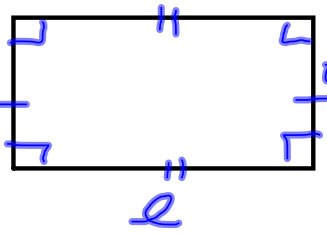
Square



$P = 4s$ or $P = s + s + s + s$

$A = s^2$ $(s \cdot s)$

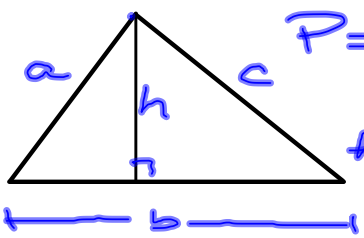
Rectangle



$P = 2w + 2l$

$A = l \cdot w$

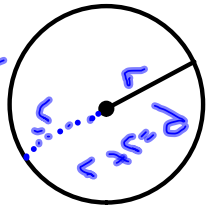
Triangle



$P = a + b + c$

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

Circle

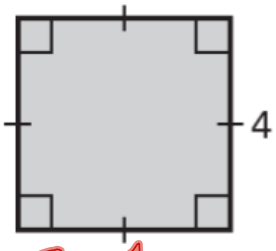


π

$C = \pi d$ or $C = 2\pi r$

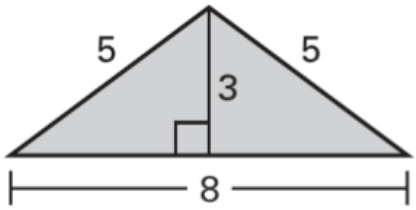
$A = \pi r^2$

Example 1: Find perimeter and area



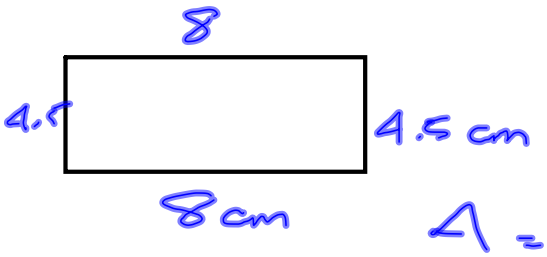
$P = 4s$
$= 4(4)$
$= 16$ units
$A = s^2$
$= 4^2 = 16$ units^2

Example 2: find perimeter and area



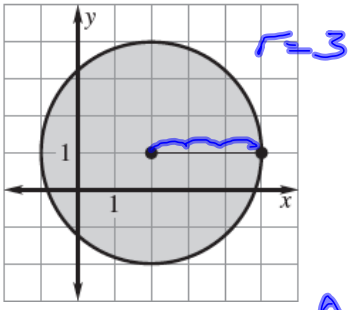
$P = 5+5+8$
$= 18$ units
$A = \frac{1}{2}(8)(3)$
$= 12$ units^2

Example 3: Find the perimeter and area of a rectangle with length 8 centimeters and width 4.5 centimeters.



$P = 2(8) + 2(4.5)$
$= 16 + 9$
$= 25$ cm
$A = 8(4.5)$
$= 36$ cm^2

Example 4: Find the circumference and area (use pi = 3.14)



$r = 3$
$C = 2\pi(3)$
$= 6\pi$
$= 6(3.14)$
$\doteq 18.84$
$A = \pi r^2 = (3.14)(3^2) = (3.14)(9)$
28.26 units^2