9/17/19 - Warm Up Problem

Calculate the midpoint of a segment with the given endpoints.

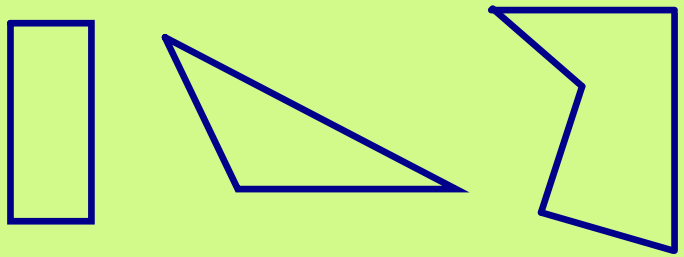
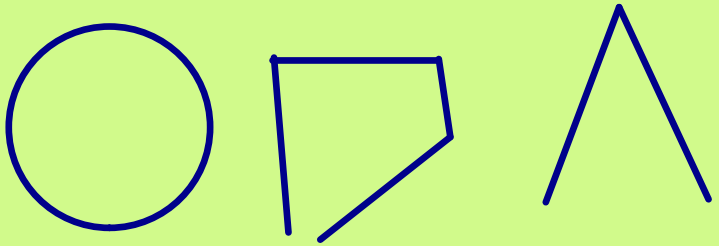
$\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$

1. A(2, -4) and B(12, -10) $(7, -7)$

2. C(-1, 8) and D(-9, 13) $\left(\frac{-1-9}{2}, \frac{8+13}{2}\right) = \left(\frac{-10}{2}, \frac{21}{2}\right) = (-5, 10.5)$

What is a polygon?

- closed
- sides are straight lines
- at least 3 sides

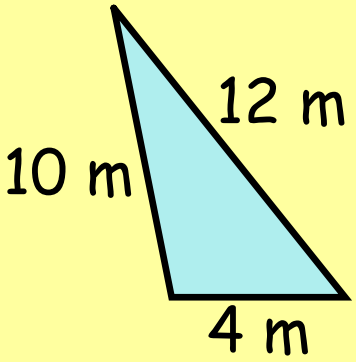
These are polygons.	These are not polygons.
	

Concept 4 - Perimeter

Goal: Calculate perimeter of triangles and quadrilaterals

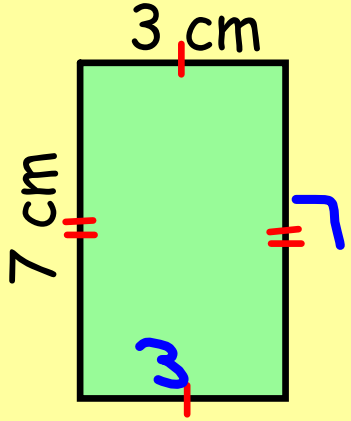
Polygon:

Perimeter:



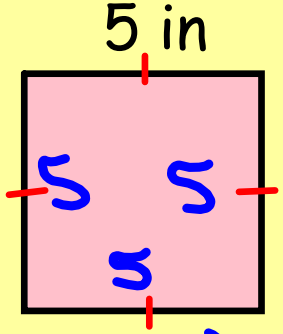
10+4+12

P=26 m



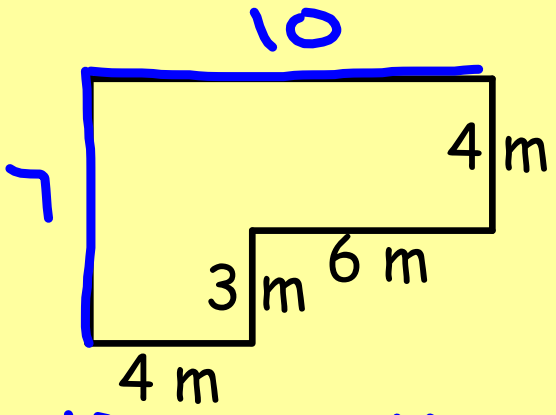
7+3+7+3

P=20 cm



5(4)

P=20 in



10+7+7+10

P=34 m

Do this one in your notes...

Calculate the perimeter of the triangle.

GF = 6 $\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$

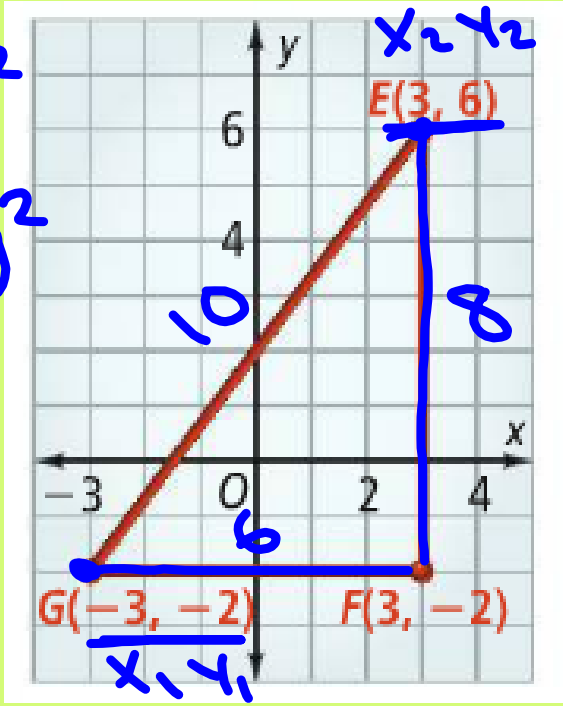
EF = 8 $\sqrt{(3--3)^2+(6--2)^2}$

GE = 10 $\sqrt{(6)^2+(8)^2}$

$\sqrt{36+64}$

Perimeter = 24 units $\sqrt{100}$

10



Assignment:

Concept 4 Worksheet (back)

- due by Monday 9/23

$$D = \sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$$

X_1Y_1 X_2Y_2

11. X(3,4), Y(3,-5), Z(-6,-5)

XY = 9

YZ = 9

ZX = 12.7

$\sqrt{(-6-3)^2+(-5-4)^2}$

$\sqrt{(-9)^2+(-9)^2}$

$\sqrt{81+81}$

$\sqrt{162}$

12.7

Perimeter = 30.7 units