Before we begin, are there any questions from last day's work?

6.1.2, 6.1.3   5-8, 12-16, 19, 20, 22

Today's Learning Goal(s):

By the end of the class, I will be able to:

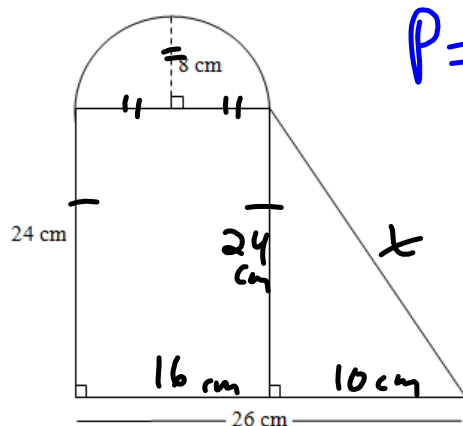a) calculate the perimeter and area of any 2-dimensional figure.

Today's work: 6.2.1   6cd, 8abd(ef), 9,10,(11)

6.2.2 (Formula Sheet)

6.2.1 Area of 2D Geometric Figures   Date: ___*May 17/17*___
       (including composite figures)

Ex. 1 a) Calculate the perimeter of the figure.
   b) Calculate the area of the figure. *(use the same diagram on the next slide)*

8 cm

24 cm   24 cm x

16 cm   10 cm

26 cm

$P = 24 + \cap + \searrow + 26$

$= 24 + 25.133 + 26 \ + \ 26$

$\doteq 101.133 \text{ cm}$

$x^2 = 24^2 + 10^2$

$= 576 + 100$

$= 676$

$x = \sqrt{676}$

$= 26 \text{ cm}$

$C = \pi d$

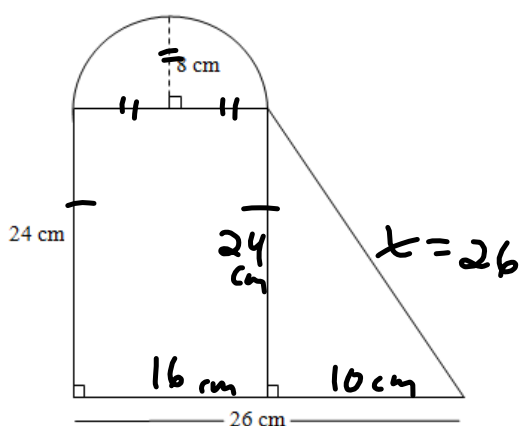$\cap = \frac{1}{2} \text{ circumference}$

$= \frac{1}{2}\pi d$

$= \frac{1}{2}\pi(16)$

$\doteq 25.1327$

$\doteq 25.133$

$C = 2\pi r$

$= \frac{1}{2}(2\pi r)$

⭐

b) Calculate the area of the figure.

8 cm

24 cm

24 cm

16 cm   10 cm

26 cm

$x = 26$

$$A_{figure} = A_{\frac{1}{2}circle} + A_{Trapezoid}$$

$$= \frac{1}{2}\pi r^2 \quad + \frac{1}{2}h(a+b)$$

$$= \frac{1}{2}\pi(8)^2 + \frac{1}{2}(24)(16+26)$$

$$\doteq 100.531 \quad + \frac{1}{2}(24)(42)$$

$$\doteq 100.531 \quad + (24)(21)$$

$$\doteq 100.531 \quad + 504$$

$$\doteq 604.531 \, cm^2$$