

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.

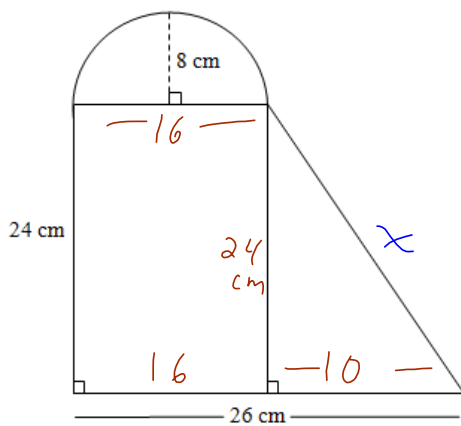
Today's work: 6.2.1 6cd, 8abd(ef), 9,10,(11)

6.2.2 (Formula Sheet)

6.2.1 Area of 2D Geometric Figures  
(including composite figures)

Date: Dec. 6/18

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



$$P = 26 + 24 + \pi + \dots$$

$$\approx 50 + 25.133 + 26$$

$$= 101.133 \text{ cm}$$

$$C = 2\pi r \div 2$$

$$= 2\pi(8) \div 2$$

$$= 8\pi$$

$$\approx 25.1327$$

$$\approx 25.133$$

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

$$= 100 + 576$$

$$= 676$$

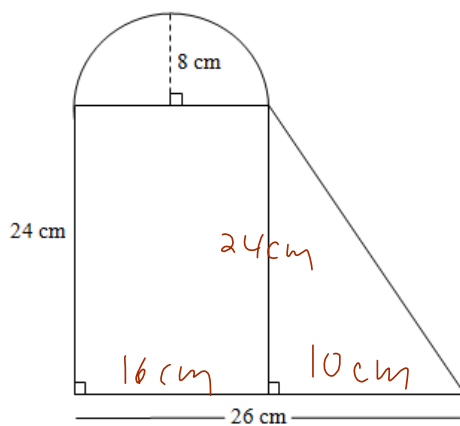
$$x = \sqrt{676}$$

$$= 26 \text{ cm}$$



101.133 cm

b) Calculate the area of the figure.



$$\begin{aligned}
 A_{\text{Total}} &= A_{\frac{1}{2}\text{circle}} + A_{\text{TRAPEZOID}} \\
 &\approx 100.531 + 504 \\
 &= 604.531 \text{ cm}^2
 \end{aligned}$$

604.531 cm<sup>2</sup>



$$\begin{aligned}
 A_{\frac{1}{2}\text{circle}} &= \frac{1}{2}\pi r^2 & A &= \frac{1}{2}h(a+b) \\
 &= \frac{1}{2}\pi(8)^2 & &= \frac{1}{2}(24)(16+26) \\
 &\approx 100.5309 & &= 12(42) \\
 &\approx 100.531 & &= 504
 \end{aligned}$$