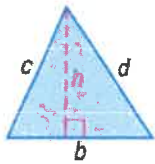
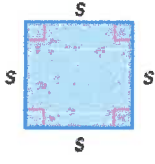
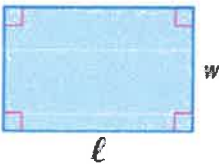
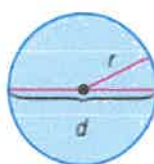
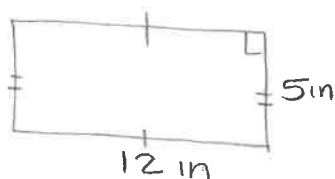


Key Concept Perimeter, Circumference, and Area			
Triangle	Square	Rectangle	Circle
			
$P = b + c + d$	$P = s + s + s + s$ $= 4s$	$P = \ell + w + \ell + w$ $= 2\ell + 2w$	$C = 2\pi r$ or $C = \pi d$
$A = \frac{1}{2}bh$	$A = s^2$	$A = \ell w$	$A = \pi r^2$
$P =$ perimeter of polygon $b =$ base, $h =$ height	$A =$ area of figure $\ell =$ length, $w =$ width		$C =$ circumference $r =$ radius, $d =$ diameter

1. Find the area and perimeter of the rectangle with length of 12 inches and width of 5 inches.



$$A = 12(5)$$

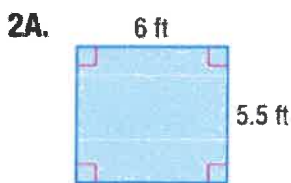
$$= 60 \text{ in}^2$$

$$P = 2(12) + 2(5)$$

$$= 24 + 10$$

$$= 34 \text{ in}$$

2. Find the ~~area~~ <sup>perimeter</sup> / circumference and area of each figure below:



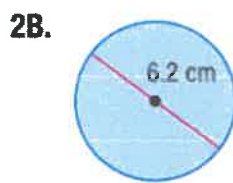
$$A = 6(5.5)$$

$$= 33 \text{ ft}^2$$

$$P = 2(6) + 2(5.5)$$

$$= 12 + 11$$

$$= 23 \text{ ft}$$



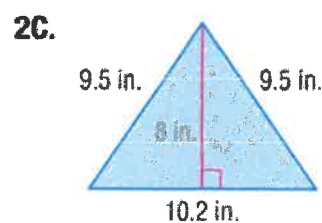
$$A = \pi r^2$$

$$= \pi (3.1)^2$$

$$= 9.61\pi \text{ cm}^2$$

$$C = 2\pi (3.1)$$

$$= 6.2\pi \text{ cm}$$



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

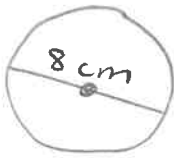
$$= \frac{1}{2}(10.2)(8)$$

$$= 40.8 \text{ in}^2$$

$$P = 9.5 + 9.5 + 10.2$$

$$= 29.2 \text{ in}$$

3. The diameter of a circle is 8 cm. Find the Area and Perimeter.

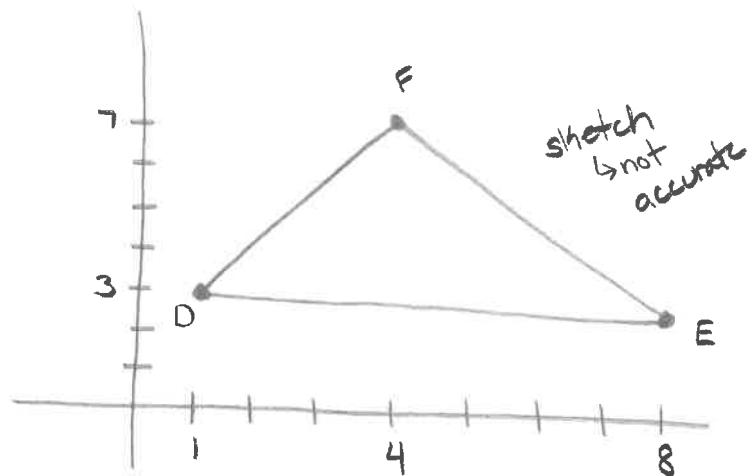


$$\begin{aligned} A &= \pi r^2 \\ &= \pi (4)^2 \\ &= 16\pi \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} C &= 2\pi r \\ &= 2\pi (4) \\ &= 8\pi \text{ cm} \end{aligned}$$

4. Find the area and perimeter of a triangle defined by  $D(1,3)$ ,  $E(8,3)$  and  $F(4,7)$

$$\begin{aligned} DF &= \sqrt{(1-4)^2 + (3-7)^2} \\ &= \sqrt{(-3)^2 + (-4)^2} \\ &= \sqrt{9+16} \\ &= \sqrt{25} \\ &= 5 \end{aligned}$$



$$\begin{aligned} EF &= \sqrt{(8-4)^2 + (3-7)^2} \\ &= \sqrt{4^2 + (-4)^2} \\ &= \sqrt{16+16} \\ &= \sqrt{32} \\ &= 4\sqrt{2} \end{aligned}$$

$$b = 8 - 1 = 7$$

$$h = 7 - 3 = 4$$

$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2}(7)(4) \\ &= 14 \text{ u}^2 \end{aligned}$$

$$\begin{aligned} P &= DF + FE + DE \\ &= 5 + 4\sqrt{2} + 7 \\ &= 12 + 4\sqrt{2} \text{ units} \\ &\approx 17.66 \text{ units} \end{aligned}$$