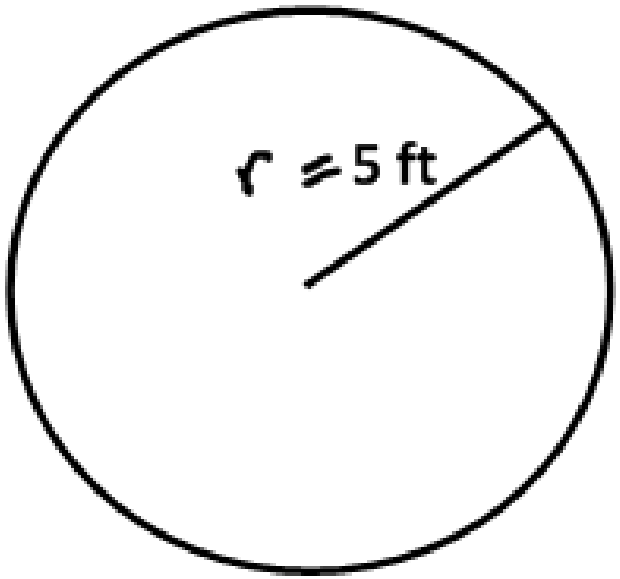
Section 12-1: Area & Perimeter

$\pi \approx 3.14$

Circles:

Area = πr^2

Circumference = $2\pi r$ or πd



Ex 1:

$A = 3.14(5)^2 = 3.14(25)$

$= 78.5 \text{ ft}^2$

$C = 2(3.14)(5)$

or $3.14(10)$

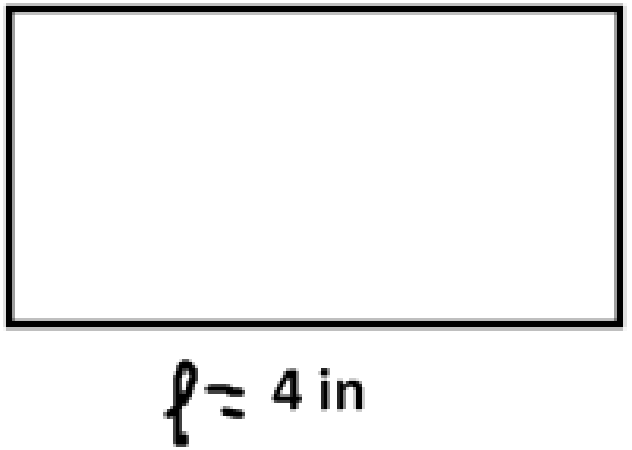
$= 31.4 \text{ ft}$

Rectangles:

Area = ℓw

Perimeter = $2\ell + 2w$

Ex 2:



$A = 4(2.5) = 10 \text{ in}^2$

$P = 2(4) + 2(2.5)$

$= 8 + 5 = 13 \text{ in}$

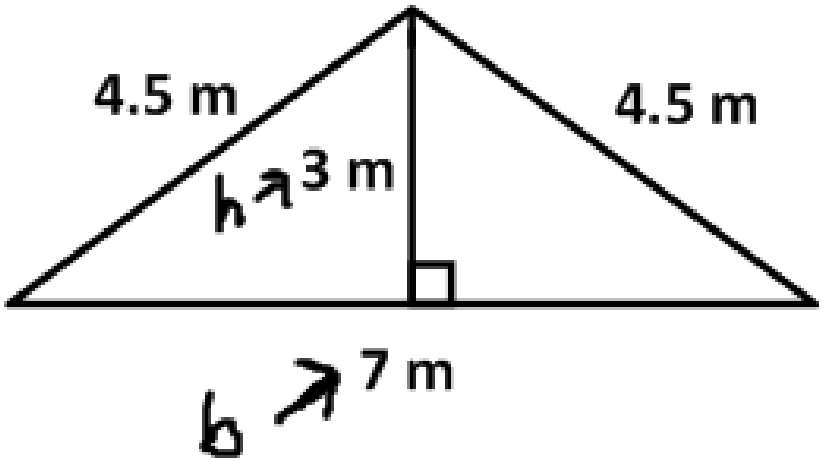
b = base

h = height

Triangles:

$$\text{Area} = \frac{1}{2}bh$$

Ex 3:

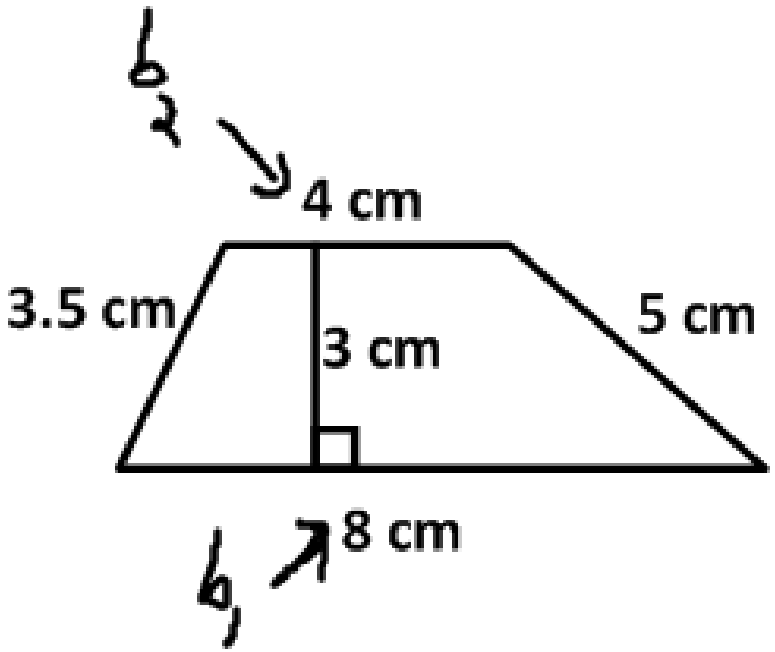


$$A = \frac{1}{2}(7)(3) = 10.5\ m^2$$

$$P = 4.5 + 4.5 + 7 = 16\ m$$

Trapezoids:

$$\text{Area} = \frac{1}{2}(b_1 + b_2)h$$



Ex 4:

$$A = \frac{1}{2}(8+4)3$$

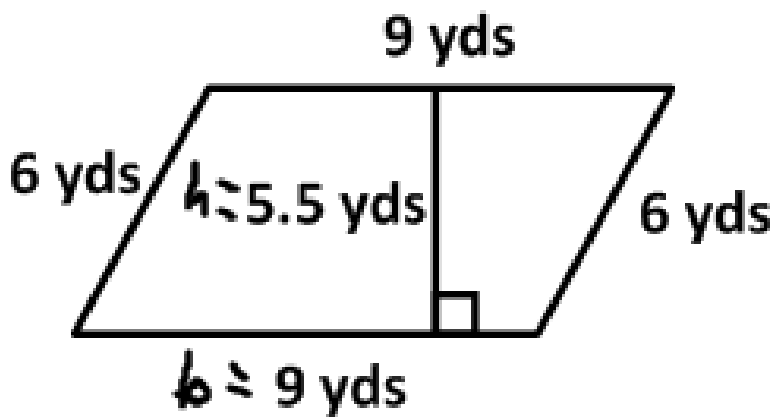
$$= \frac{1}{2}(12)(3) = 18\ cm^2$$

$$P = 3.5+4+5+8 = 20.5\ cm$$

Parallelograms:

Area = bh

Ex 5:



$A = 9(5.5) = 49.5 \text{ yds}^2$

$P = 9+9+6+6 = 30 \text{ yds}$