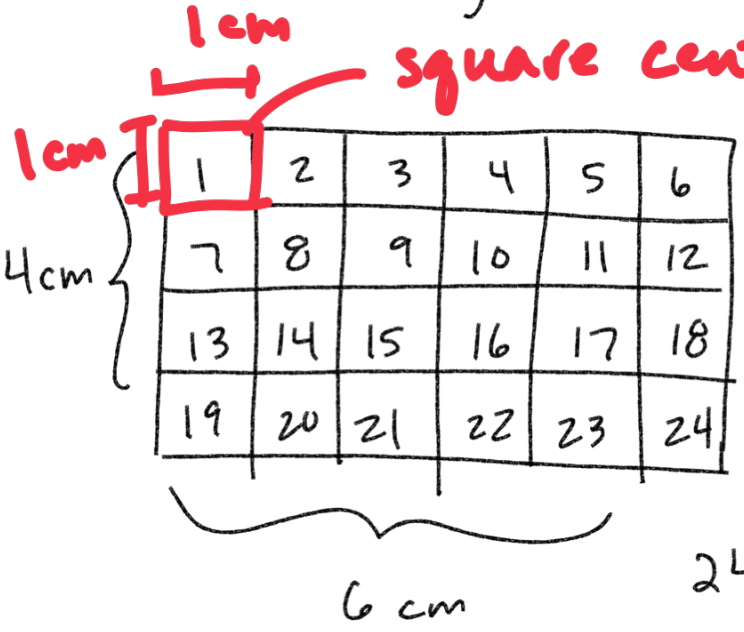
T-G Geometry Week 29 4/23



24 squares

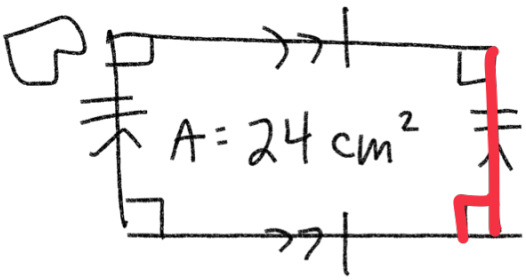
Area = base * height

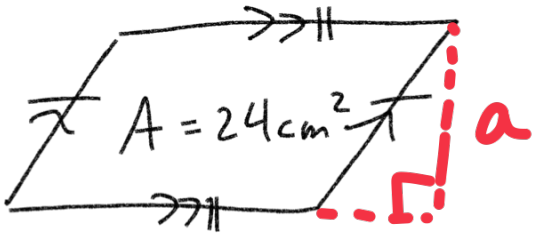
$A = bh$

Area = (6 cm)(4 cm)

= $24\ cm^2$

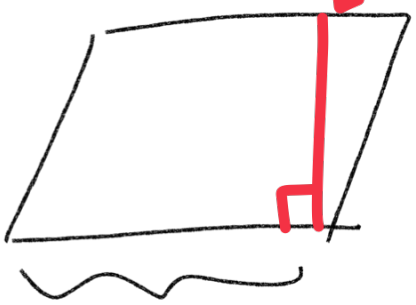
"squared"





Area of Parallelogram

altitude ("height for mountains")

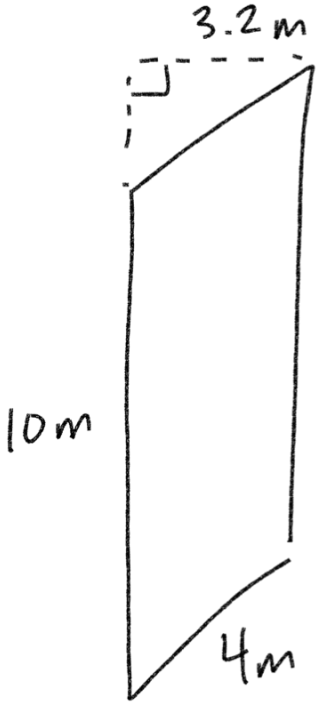


Area = base * altitude.

A = 8cm * 4cm

$32\ cm^2$

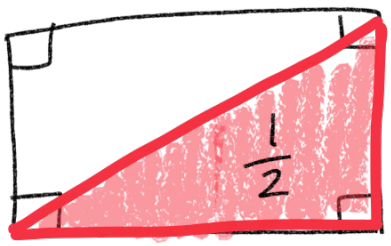
slant height



Area = base * altitude

10m * 3.2m = $\boxed{32\,m^2}$

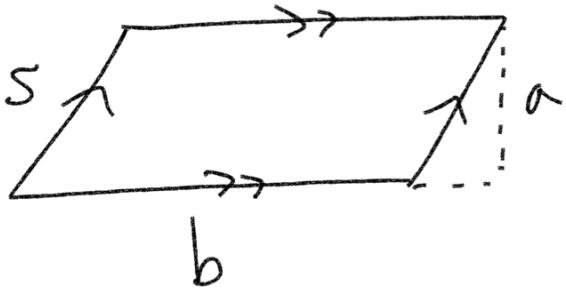
Area of Triangle



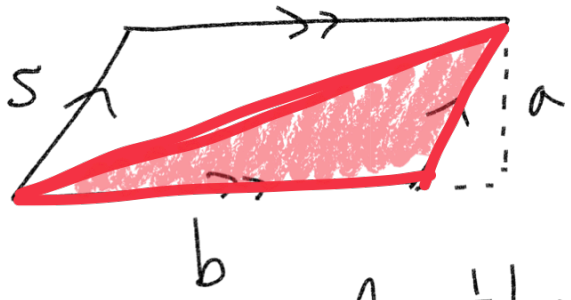
Triangle = $\frac{1}{2}$ Rectangle

Area of Rectangle = bh

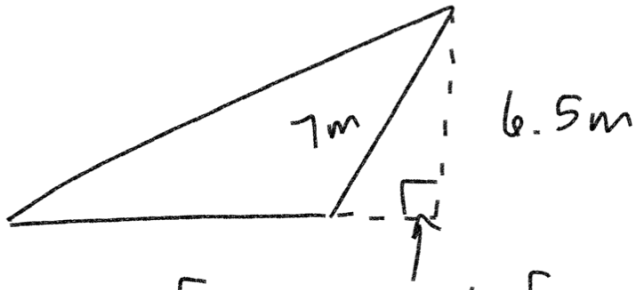
Area of Triangle = $\frac{1}{2}bh$



$A = ba$



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



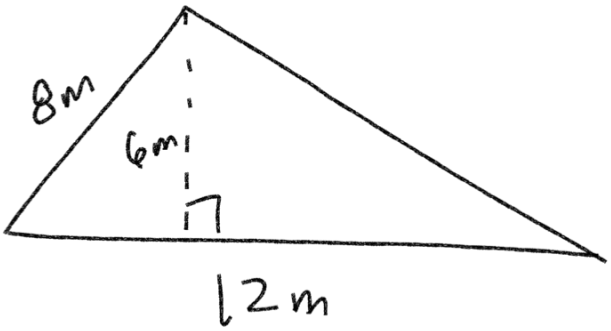
look for perpendicular

$\text{Area} = \frac{1}{2} b a$

$\frac{1}{2}(5m)(6.5m)$

$16.25 m^2$

1.)

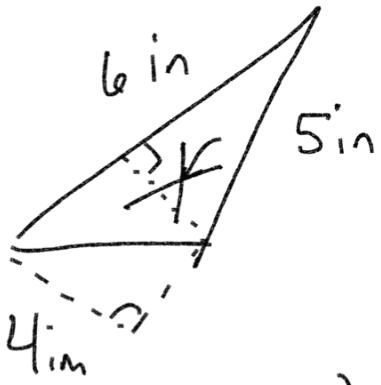


$A = \frac{1}{2}(ba)$

$\frac{1}{2}(12m)(6m) = 36 m^2$

units^2

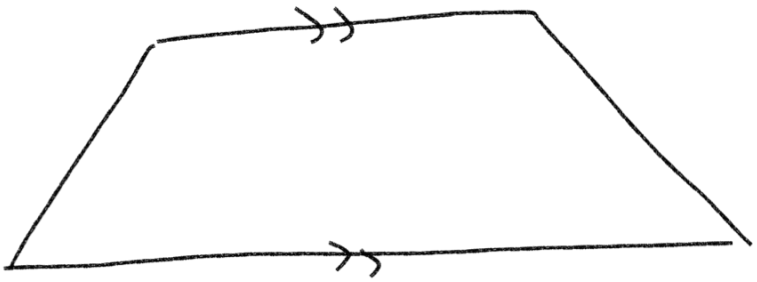
2.)



$A = \frac{1}{2}(ba)$

$\frac{1}{2}(5in)(4in)$

$10 in^2$

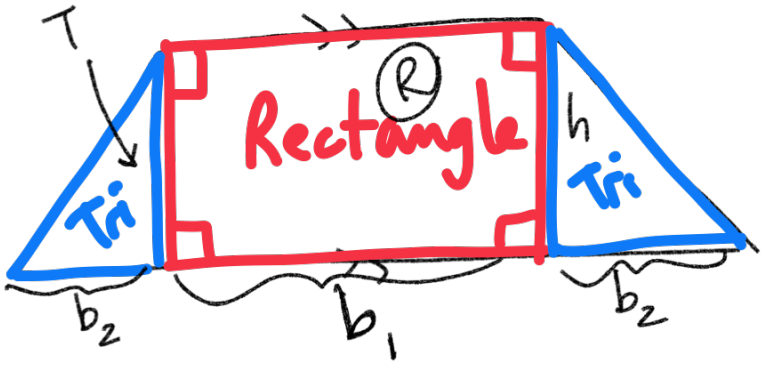


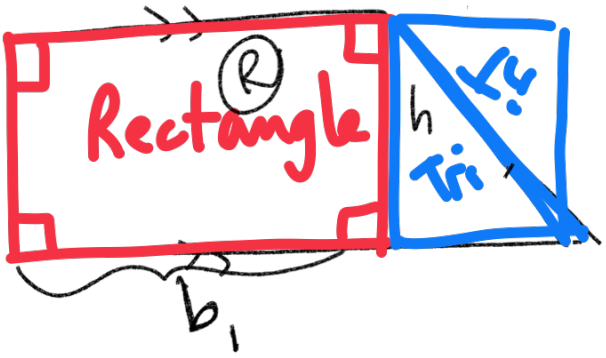
Area of Trapezoid

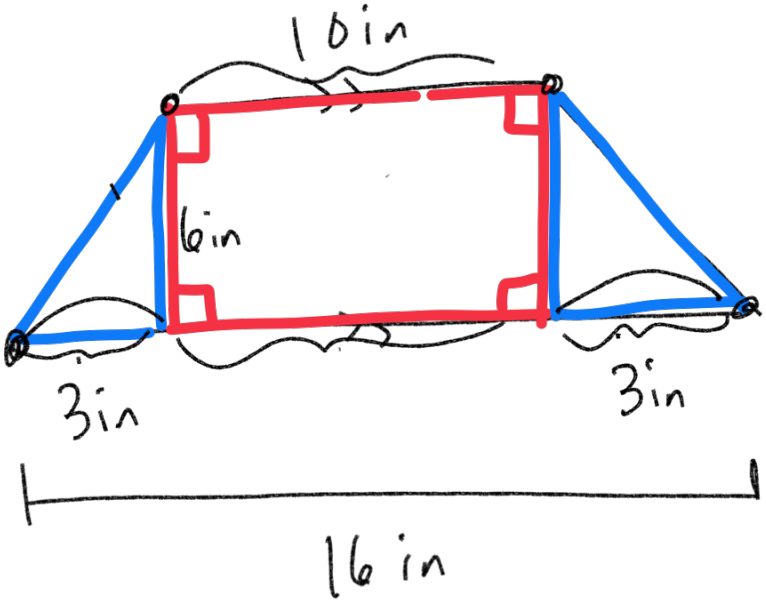
$A = \left(\frac{b_1 + b_2}{2}\right) h$

$b_1 h + \frac{1}{2} b_2 h + \frac{1}{2} b_2 h$

$b_1 h + b_2 h$







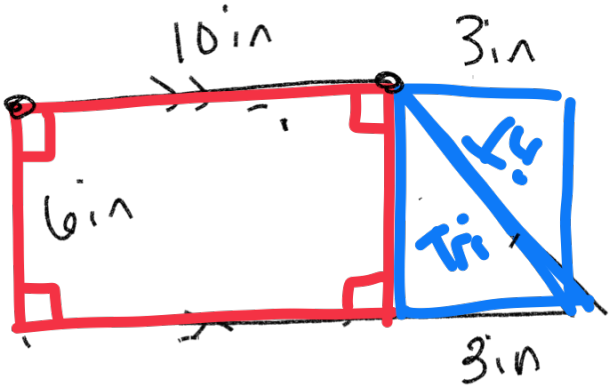
$$A = \left(\frac{b_1 + b_2}{2}\right) h$$

$$\left(\frac{16\text{in} + 10\text{in}}{2}\right) 6\text{in}$$

$$\left(\frac{26\text{in}}{2}\right) 6\text{in}$$

$$(13\text{in})(6\text{in})$$

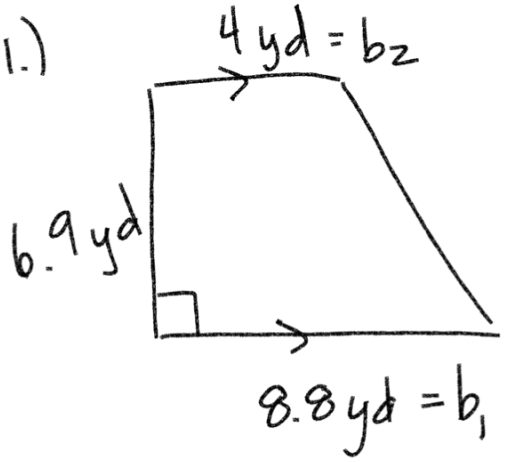
$$\boxed{78\text{in}^2}$$



$$A = (13\text{in})(6\text{in})$$

$$\boxed{78\text{in}^2}$$

1.)

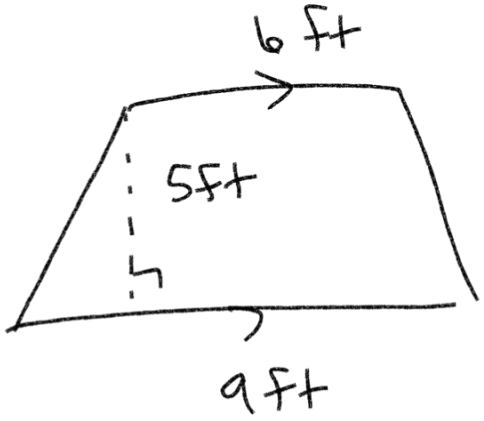


$$A = \left(\frac{b_1 + b_2}{2}\right)h$$

$$\frac{(8.8+4)}{2}(6.9)$$

$$44.16\ yd^2$$

2.)



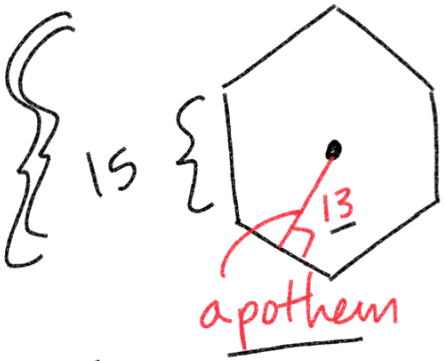
$$A = \left(\frac{6+9}{2}\right)5$$

$$\left(\frac{15}{2}\right)5 =$$

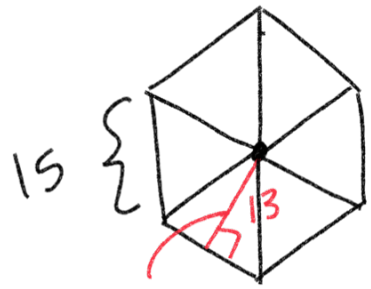
$$37.5\ ft^2$$

Regular Polygon

↳ All sides are equal



hexagon



6 triangles

Area of Regular Polygon

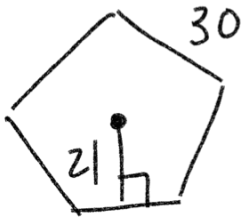
$$6\left(\frac{1}{2}bh\right) = 6\left(\frac{1}{2}(15)(13)\right)$$

$$= 585\ units^2$$

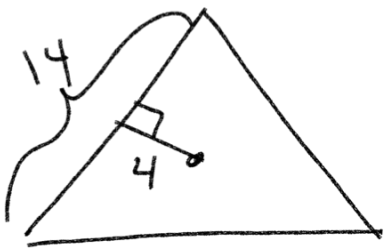
$$\frac{1}{2}(\text{perimeter})(\text{apothem})$$

$$\frac{1}{2}(15 \cdot 6)(13) = 585\ units^2$$

1.)



2.)



Regular Polygon

$A = \frac{1}{2}(\text{perimeter})(\text{apothem})$

$\frac{1}{2}(\#\text{ of sides})(\text{side length})(\text{apothem})$

$\frac{1}{2}(5)(30)(21) =$ **1575 units^2**

$A = \frac{1}{2}(3)(14)(4)$

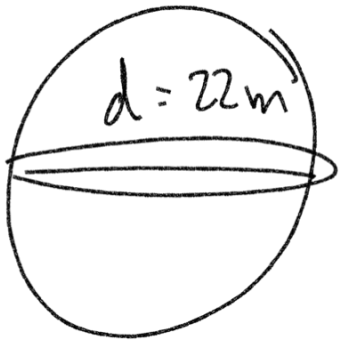
84 units^2

Volume of Sphere

$$V = \frac{4}{3}\pi r^3 \quad \text{or} \quad V = \frac{4}{3}\pi\left(\frac{d}{2}\right)^3$$

r = radius

d = diameter



$V = \frac{4}{3}\pi\left(\frac{22}{2}\right)^3$

5572 m^3