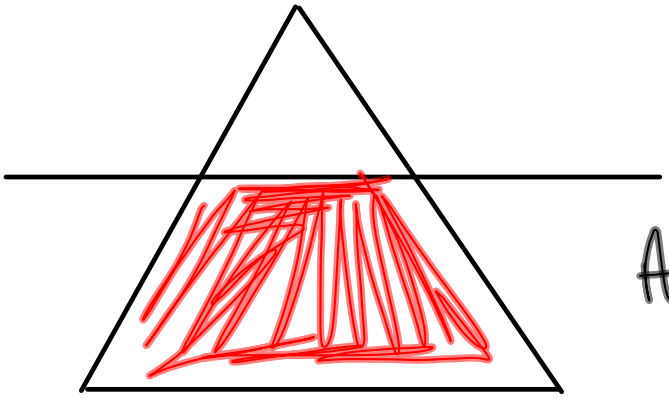
$A = \frac{bh}{2}$



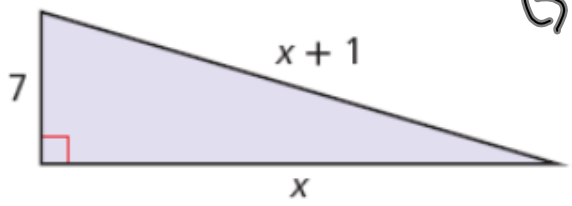
$A = \frac{(b_1 + b_2)h}{2}$

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

Part 2: Area of Triangles and Trapezoids

1. Find the perimeter and area of the triangle.

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



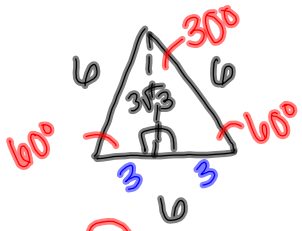
$P = 7 + x + 1 + x =$ $\boxed{8 + 2x}$

$A = \frac{x7}{2} =$ $\boxed{\frac{7x}{2} \text{ or } 3{,}5x}$

2. Find the area of an equilateral triangle with side of 6 in.

n, n√3, 2n

NO CALC



height = $3\sqrt{3}$

$3^2+h^2=6^2$

$9+h^2=36$

$h=\sqrt{27}$

$A=\frac{bh}{2}=\frac{6(3\sqrt{3})}{2}$

$\frac{18\sqrt{3}}{2}$ in^2

$9\sqrt{3}$

3. Find b_1 of the trapezoid in which the $A = 91\ ft^2$, $b_2 = 10$ and the height is 14.

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

$91=\frac{(b_1+10)14}{2}$

$91=(b_1+10)7$

$91=7b_1+70$

$\frac{91}{7}=\frac{(b_1+10)7}{7}$

$13=b_1+10$

$-10 \quad -10$

$b_1=3ft$

4. The base of a triangle is one half of its height. If the area of the triangle is 196 square millimeters, find its base and height.

$196=\frac{.5h\cdot h}{2}$

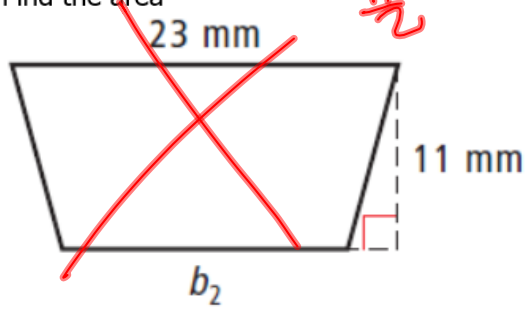
$2\cdot 196=.5h^2\cdot 2$

$\frac{392}{.5}=\frac{.5h^2}{.5}$

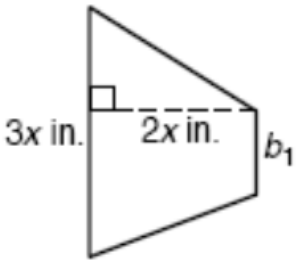
$\sqrt{784}=\sqrt{h^2}$

$h=28\ mm$

5. Find the area



6. Find b_1 of the following trapezoid where A = $4x^2$ sq. in.



$4x^2 = \frac{(b_1 + 3x)2x}{2}$

$\frac{4x^2}{x} = \frac{(b_1 + 3x)x}{x}$

$4x = b_1 + 3x$

$-3x \quad -3x$

$x = b_1$

* variable is on the outside of ( )

do not distribute in