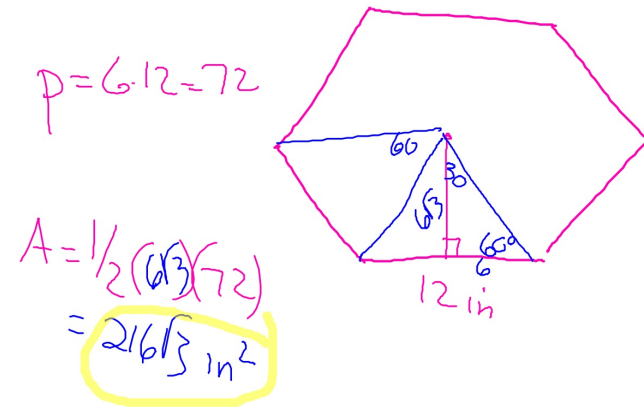


Area of a regular polygon = $\frac{1}{2}ap$

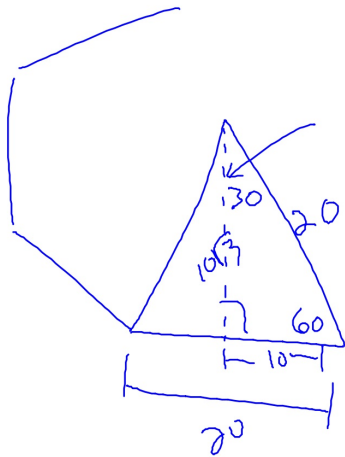
a = length of the apothem

p = perimeter of the polygon

Find the exact area of a regular hexagon whose sides are 12 in long.



Find the exact area of a regular hexagon with radius 20 cm long.



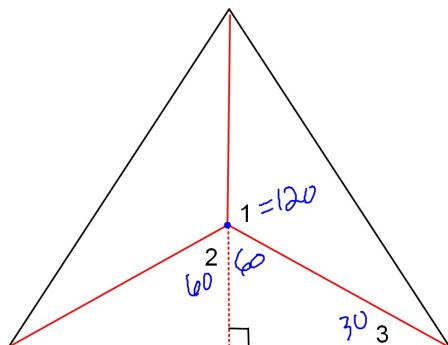
$p = 6 \cdot 20 = 120$
 $a = 10\sqrt{3}$
 $A = \frac{1}{2}(10\sqrt{3})(120)$
 $= 600\sqrt{3} \text{ cm}^2$

Find the area of a regular hexagon with an apothem 9 mm long.

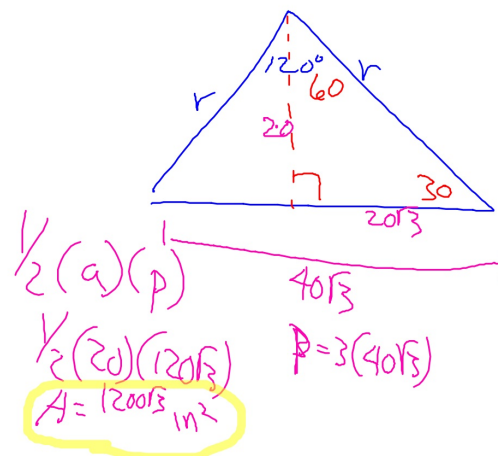


$\frac{1}{2}ap$
 $\frac{1}{2}(9)(\frac{108}{\sqrt{3}})$
 $p = \frac{18}{\sqrt{3}} \cdot 6 = \frac{108}{\sqrt{3}}$
 $A = 280.59 \text{ mm}^2$

Find the measure of each numbered angle in this regular triangle
(Equilateral Triangle)



Find the exact area of an equilateral triangle
whose apothem is 20cm long.



Find the area of an equilateral triangle whose
sides are 8in long. Give answer to nearest tenth.

