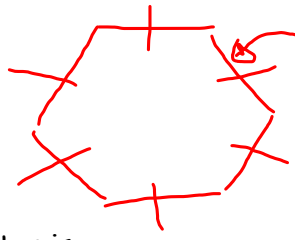
LESSON # 42 ~ Perimeter of a Regular Polygon

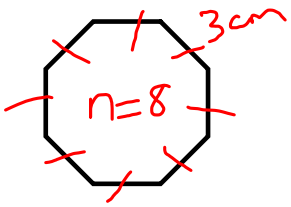
Regular Polygons with n sides of side length "s" units?????
What does this mean....



hex = 6 = n

Perimeter is $P = S(n)$ S = side length

Example 1



octagon

$P = Sn$
$P = 3(8)$
$P = 24$

Example 2
The perimeter of a regular decagon is 112cm. Find the length of each side. S?

n = 10
P = 112
S = ?

$P = Sn$
$112 = S(10)$
$\frac{112}{10} = \frac{S(10)}{10}$
$11.2 = S$ side

Example 3
Name the regular polygon. n?
Side length is 11.7 & perimeter is 70.2cm

$S = 11.7$
$P = 70.2$

$P = Sn$
$70.2 = 11.7n$
$\frac{70.2}{11.7} = \frac{11.7n}{11.7}$
$n = 6$
hexagon