

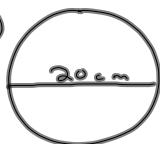
9-30-13

5th Geo

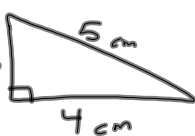
Circle: $A = \pi r^2$
 $C = \pi d$ or $2\pi r$

Rectangle: $A = l \cdot w$

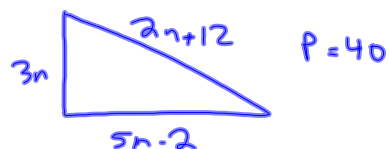
Triangle: $A = \frac{1}{2} b \cdot h$
b and h are at right angle

①  $A = \pi r^2$
 $= \pi \cdot 10^2$
 $= 100\pi$ Exact answer
 $\approx 314.16 \text{ cm}^2$

$$C = \pi d$$
$$= \pi \cdot 20$$
$$= 20\pi$$
$$\approx 62.83 \text{ cm}$$

②  $A = \frac{1}{2} b h$
 $= \frac{1}{2} \cdot 4 \cdot 3$
 $= 6 \text{ cm}^2$
 $P = 3 + 4 + 5 = 12 \text{ cm}$

③ If the perimeter of a triangle is 40 cm with sides of $3n$, $2n+12$, $5n-2$, what is the value of n ?



$$3n + 5n - 2 + 2n + 12 = 40$$

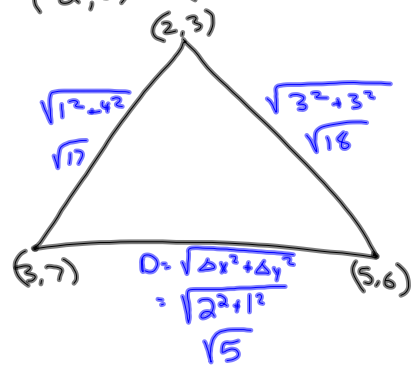
$$10n + 10 = 40$$

$$\underline{-10 \quad -10}$$

$$10n = 30$$

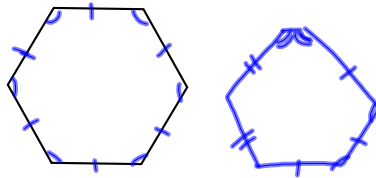
$$n = 3$$

What is the perimeter
of a triangle with vertices
(2,3) (3,7) (5,6)



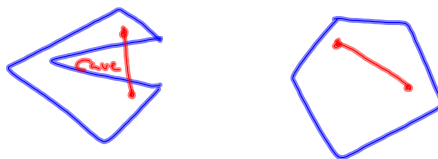
$$P = \sqrt{5} + \sqrt{18} + \sqrt{17} \approx 10.60$$

Regular Polygons - All sides are =
and all \angle 's are =.



# of sides	Name
3	triangle
4	quadrilateral
5	pentagon
6	hexagon
7	septagon or heptagon
8	octagon
9	nonagon
10	decagon
12	dodecagon

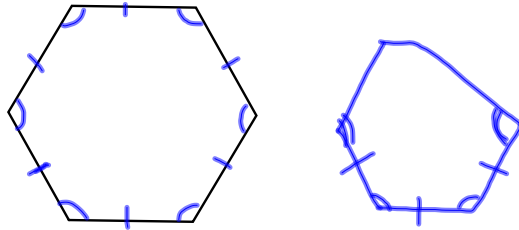
Concave vs. Convex



9-30-13
6th Geo

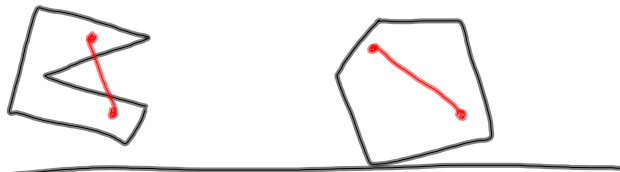
Regular vs. Irregular

Regular - All sides are = and all angles are the same



# of sides	Polygon name
3	Triangle
4	Quadrilateral
5	Pentagon
6	Hexagon
7	Heptagon or septagon
8	Octagon
9	Nonagon
10	Decagon
12	Du-decagon

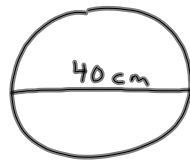
Concave vs. Convex Polygon



Circle: $A = \pi r^2$
 $C = \pi d$ or $2\pi r$

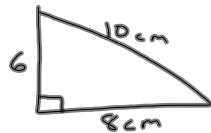
Rectangle: $A = l \cdot w$

Triangle: $A = \frac{1}{2} \cdot b \cdot h$



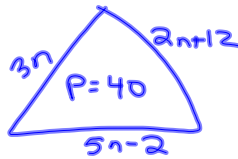
$$\begin{aligned}
 A &= \pi r^2 \\
 &= \pi \cdot 20^2 \\
 &= 400\pi \text{ exact} \\
 &\approx 1256.6 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 C &= \pi \cdot d \\
 &= \pi \cdot 40 \\
 &= 40\pi \text{ exact} \\
 &\approx 125.7 \text{ cm}
 \end{aligned}$$



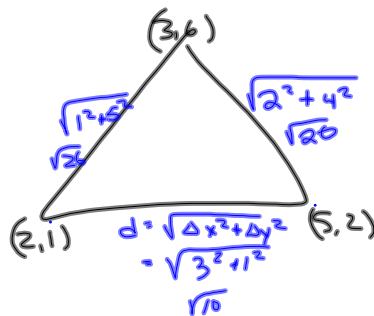
$$\begin{aligned}
 A &= \frac{1}{2}bh \\
 &= \frac{1}{2} \cdot 8 \cdot 6 \\
 &= 24 \text{ cm}^2 \\
 P &= 6 + 8 + 10 = 24 \text{ cm}
 \end{aligned}$$

If the perimeter of a Δ is 40 cm with sides of $3n$, $2n+12$, and $5n-2$, what is n ?



$$\begin{aligned}
 3n + 5n - 2 + 2n + 12 &= 40 \\
 10n + 10 &= 40 \\
 \underline{-10 \quad -10} & \\
 10n &= 30 \\
 \frac{10n}{10} &= \frac{30}{10} \\
 n &= 3
 \end{aligned}$$

What is the perimeter of a triangle with vertices of $(2,1)$, $(3,6)$ and $(5,2)$?



$$\begin{aligned}
 P &= \sqrt{10} + \sqrt{20} + \sqrt{26} \\
 &\approx 27.7 \text{ cm}
 \end{aligned}$$