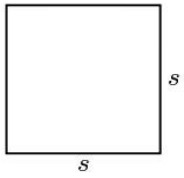
LU_dAREdevils
Leading University

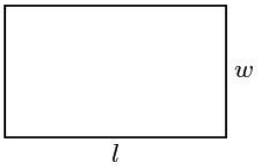
SQUARE

s = side
Area: $A = s^2$
Perimeter: $P = 4s$



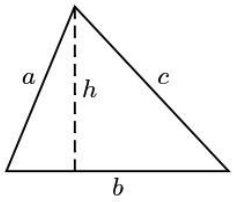
RECTANGLE

l = length, w = width
Area: $A = lw$
Perimeter: $P = 2l + 2w$



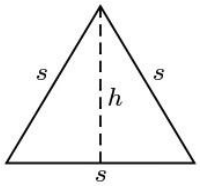
TRIANGLE

b = base, h = height
Area: $A = \frac{1}{2}bh$
Perimeter: $P = a + b + c$



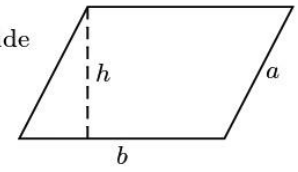
EQUILATERAL TRIANGLE

s = side
Height: $h = \frac{\sqrt{3}}{2}s$
Area: $A = \frac{\sqrt{3}}{4}s^2$



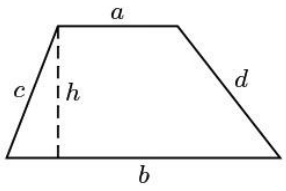
PARALLELOGRAM

b = base, h = height, a = side
Area: $A = bh$
Perimeter: $P = 2a + 2b$



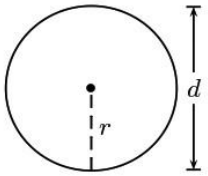
TRAPEZOID

a, b = bases; h = height;
c, d = sides
Area: $A = \frac{1}{2}(a + b)h$
Perimeter:
$P = a + b + c + d$



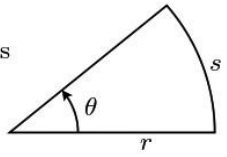
CIRCLE

r = radius, d = diameter
Diameter: $d = 2r$
Area: $A = \pi r^2$
Circumference: $C = 2\pi r = \pi d$



SECTOR OF CIRCLE

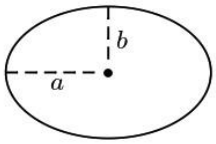
r = radius, θ = angle in radians
Area: $A = \frac{1}{2}\theta r^2$
Arc Length: $s = \theta r$



ELLIPSE

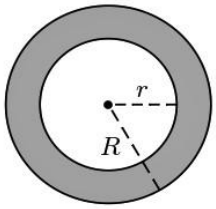
a = semimajor axis
b = semiminor axis
Area: $A = \pi ab$

Circumference:
$C \approx \pi\left(3(a+b) - \sqrt{(a+3b)(b+3a)}\right)$



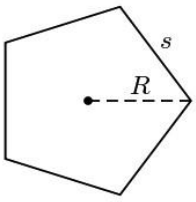
ANNULUS

r = inner radius,
R = outer radius
Average Radius: $\rho = \frac{1}{2}(r + R)$
Width: $w = R - r$
Area: $A = \pi(R^2 - r^2)$
or $A = 2\pi\rho w$



REGULAR POLYGON

s = side length,
n = number of sides
Circumradius: $R = \frac{1}{2}s\csc(\frac{\pi}{n})$
Area: $A = \frac{1}{4}ns^2\cot(\frac{\pi}{n})$
or $A = \frac{1}{2}nR^2\sin(\frac{2\pi}{n})$



Rhombus: **Area =** (d1 * d2) / 2 **=** s^2 * sin(C)**;** **Perimeter =** 4*s ;
Kite: **Area** = (d1 * d2) / 2; **Perimeter =** 2(s1 + s2);
[d1 and d2= lengths of the diagonals, s = s1= s2 = length of side, C = interior angle;**]**