Geometric Formulas

Perimeter
- Rectangle: \( P = 2L + 2W \)
- Square: \( P = 4s \)
- Triangle: \( P = a + b + c \)

Circumference of a circle: \( P = \pi d \) or \( P = 2\pi r \)

Area
- Circle: \( A = \pi r^2 \)
- Parallelogram: \( A = bh \)
- Rectangle: \( A = LW \)
- Square: \( A = s^2 \)
- Trapezoid: \( A = \frac{1}{2}h(b_1 + b_2) \)
- Triangle: \( A = \frac{1}{2}bh \)

Volume
- Cube: \( V = s^3 \)
- Rectangular solid: \( V = LWH \)
- Regular square pyramid: \( V = \frac{1}{3}s^2h \)
- Right circular cylinder: \( V = \pi r^2h \)
- Right circular cone: \( V = \frac{1}{3}\pi r^2h \)
- Sphere: \( V = \frac{4}{3}\pi r^3 \)

Surface Area
- Cube: \( SA = 6s^2 \)
- Rectangular Solid: \( SA = 2LW + 2LH + 2WH \)
- Regular pyramid: \( SA = s^2 + 2sl \)
- Right circular cone: \( SA = \pi r^2 + \pi rl \)
- Right circular cylinder: \( SA = 2\pi r^2 + 2\pi rh \)
- Sphere: \( SA = 4\pi r^2 \)

Pythagorean Theorem: \( a^2 + b^2 = c^2 \)

Angles of a Triangle: \( \angle a + \angle b + \angle c = 180^\circ \)

Complementary angles are two angles whose measurements have the sum of 90°.
Supplementary angles are two angles whose measurements have the sum of 180°.

Scalene triangles have no side of equal length.
Isosceles triangles have two sides of equal length.
Equilateral triangles have three sides of equal length.