Chapter 12 Review

Do you know the definitions of …

Prism?	
Altitude of a polygon?	
Height of a polygon?	
Regular polygon?	
Inscribed figure?	
Center of a regular polygon?	
Radius of a regular polygon?	

Do you know the definitions of …

Prism?	
Pyramid?	
Cylinder?	
Cone?	
Sphere?	
Regular polygon?	
Radius, center, central angle, and apothem of a regular polygon?	

Do you know the definitions of …

Base of a polygon?	
Base of a prism? Pyramid? Cylinder? Cone?	
Altitude of a prism? Pyramid? Cylinder? Cone?	
Lateral edge of a prism? Pyramid?	
Lateral area of a prism? Pyramid? Cylinder? Cone?	
Slant height of pyramid? Cone?	
Scale factor?	

Do you know the formulas for …

Area of a square?	
Area of a rectangle?	
Area of a parallelogram?	
Perimeter of a parallelogram?	
Area of rhombus?	
Area of a triangle?	
Circumference of a circle?	
Area of a circle?	
Area of a regular polygon?	
Area of a trapezoid?	

Do you know the formulas for …

Lateral Areas of prisms, pyramids, cones, cylinders.	
Total Areas of spheres, prisms, pyramids, cones, cylinders	
Volumes of spheres, prisms, pyramids, cones, cylinders	
Ratio of perimeters based on scale factor?	
Ratio of areas based on scale factor?	
Ratio of volumes based on scale factor?	
Relationships of slant height, altitude, radius, apothem, base edge, and lateral edge of pyramids	

Pattern Right Triangles?

- Pattern right triangles can also be seen as RATIOS!
  - The Pythagorean Triples (based on lengths of sides)
    - 3x: 4x: 5x
    - 5x: 12x: 13x
    - 8x: 15x: 17x
    - 7x: 24x: 25x
  - The Special Right Triangles (based on angles)
    - 45-45-90
      - Based on sides → 1x: 1x, $\sqrt{2}x$
    - 30-60-90
      - Based on sides → 1x: $\sqrt{3}x$: 2x

Formulas

Lateral Area of Prism = (perimeter of base) x (height)

Total Area of Prism = (Lateral Area) + (2 x (Base Area))

Volume of a Prism = (Base Area) x (height)

Lateral Area of Pyramid = (1/2) x (perimeter of base) x (slant height)

Total Area of Pyramid = (Lateral Area) + (Base Area)

Volume of Pyramid = (1/3) x (Base Area) x (height)