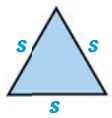
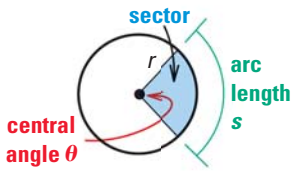
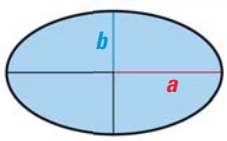
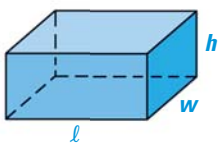
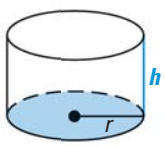
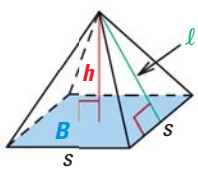
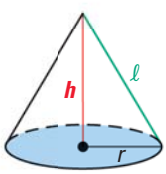
Formulas from Geometry

Basic geometric figures	See pages 991–993 for area formulas for basic two-dimensional geometric figures.
Area of an equilateral triangle	Area $= \frac{\sqrt{3}}{4}s^2$ where s is the length of a side 
Arc length and area of a sector	Arc length $= r\theta$ where r is the radius and θ is the radian measure of the central angle that intercepts the arc Area $= \frac{1}{2}r^2\theta$ 
Area of an ellipse	Area $= \pi ab$ where a and b are half the lengths of the major and minor axes of the ellipse 
Volume and surface area of a right rectangular prism	Volume $= \ell wh$ where ℓ is the length, w is the width, and h is the height Surface area $= 2(\ell w + wh + \ell h)$ 
Volume and surface area of a right cylinder	Volume $= \pi r^2 h$ where r is the base radius and h is the height Lateral surface area $= 2\pi rh$ Surface area $= 2\pi r^2 + 2\pi rh$ 
Volume and surface area of a right regular pyramid	Volume $= \frac{1}{3}Bh$ where B is the area of the base and h is the height Lateral surface area $= \frac{1}{2}ns\ell$ where n is the number of sides of the base, s is the length of a side of the base, and ℓ is the slant height Surface area $= B + \frac{1}{2}ns\ell$ 
Volume and surface area of a right circular cone	Volume $= \frac{1}{3}\pi r^2 h$ where r is the base radius and h is the height Lateral surface area $= \pi r\ell$ where ℓ is the slant height Surface area $= \pi r^2 + \pi r\ell$ 
Volume and surface area of a sphere	Volume $= \frac{4}{3}\pi r^3$ where r is the radius Surface area $= 4\pi r^2$