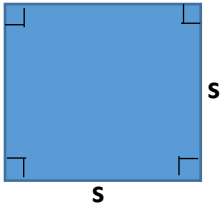
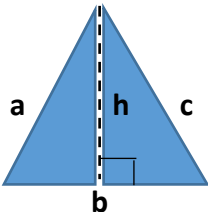
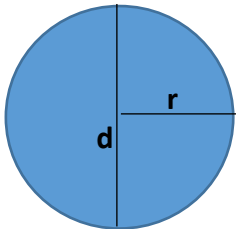
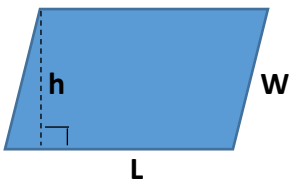
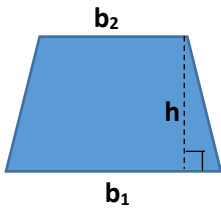

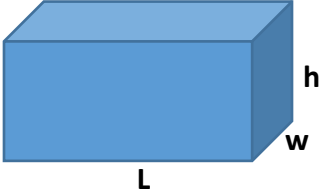
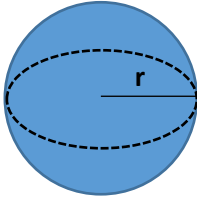
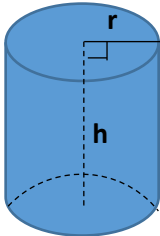
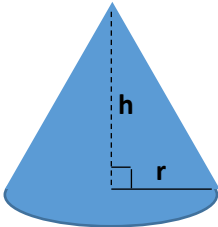


# Perimeter, Area, and Volume of Shapes

Shape	Formulas
<p><b>Square</b></p> 	<p><b>Square</b></p> <p><b>Area</b> = side × side = side<sup>2</sup> <b>A</b> = s<sup>2</sup></p> <p><b>Perimeter</b> = 4 × side <b>P</b> = 4s</p>
<p><b>Triangle</b></p> 	<p><b>Triangle</b></p> <p><b>Area</b> = <math>\frac{1}{2}</math> × base × height <b>A</b> = <math>\frac{1}{2}</math> bh</p> <p><b>Perimeter</b> = side + side + side <b>P</b> = a + b + c</p>
<p><b>Circle</b></p> 	<p><b>Circle</b></p> <p><b>Diameter</b> = d = 2r = 2 × radius</p> <p><b>Circumference</b> = π × d = 2 × π × r</p> <p><b>Area</b> = π · r<sup>2</sup></p>
<p><b>Parallelogram</b></p> 	<p><b>Parallelogram</b></p> <p><b>Perimeter</b> = length + width + length + width <b>P</b> = 2L + 2W</p> <p><b>Area</b> = L × h</p>
<p><b>Trapezoid</b></p> 	<p><b>Trapezoid</b></p> <p><b>Perimeter</b> = side + side + side + side</p> <p><b>Area</b> = <math>\frac{1}{2}</math> (base<sub>1</sub> + base<sub>2</sub>) × height <b>A</b> = <math>\frac{1}{2}</math> (b<sub>1</sub> + b<sub>2</sub>) · h</p>
<p>Units of perimeter and circumference are always linear units such as inches, feet, meters, and so on. The units of area are always square units, such as square inches (in<sup>2</sup>), square feet (ft<sup>2</sup>), square kilometers (km<sup>2</sup>), etc.. Similarly, units of volume are cubic units, such as cubic inches (in<sup>3</sup>), cubic yards (yd<sup>3</sup>), cubic centimeters, (cm<sup>3</sup>), etc.</p>	

# Perimeter, Area, and Volume of Shapes

Shape	Formulas
<p><b>Rectangle</b></p> 	<p><b>Rectangle</b></p> <p><b>Area</b> = length <math>\times</math> width  <math>A = L \times W</math></p> <p><b>Perimeter</b> = 2 (length + width)  <math>P = 2L + 2W</math></p>
<p><b>Rectangular Solid</b></p> 	<p><b>Rectangular Solid</b></p> <p><b>Volume</b> = Length <math>\times</math> width <math>\times</math> height  <math>V = L \cdot w \cdot h</math></p> <p><b>Surface Area</b> = <math>2Lw + 2hL + 2hw</math></p>
<p><b>Sphere</b></p> 	<p><b>Sphere</b></p> <p><b>Volume</b> = <math>\frac{4}{3} \times \pi \times \text{radius}^3</math>  <math>V = \frac{4}{3} \pi r^3</math></p> <p><b>Surface Area</b> = <math>4 \times \pi \times \text{radius}^2</math>  <math>SA = 4 \cdot \pi \cdot r^2</math></p>
<p><b>Right Circular Cylinder</b></p> 	<p><b>Right Circular Cylinder</b></p> <p><b>Volume</b> = <math>\pi \times \text{radius}^2 \times \text{height}</math>  <math>V = \pi \cdot r^2 h</math></p> <p><b>Surface Area</b> = <math>2 \times \pi \times \text{radius} \times \text{height} + 2 \times \pi \times \text{radius}^2</math>  <math>SA = 2 \cdot \pi \cdot r \cdot h + 2 \cdot \pi \cdot r^2</math></p>
<p><b>Right Circular Cone</b></p> 	<p><b>Right Circular Cone</b></p> <p><b>Volume</b> = <math>\frac{1}{3} \pi \times \text{radius}^2 \times \text{height}</math>  <math>V = \frac{1}{3} \pi \cdot r^2 h</math></p> <p><b>Surface Area</b> = <math>\pi \cdot r (r + \sqrt{h^2 + r^2})</math></p>

Units of perimeter and circumference are always linear units such as inches, feet, meters, and so on. The units of area are always square units, such as square inches (in<sup>2</sup>), square feet (ft<sup>2</sup>), square kilometers (km<sup>2</sup>), etc.. Similarly, units of volume are cubic units, such as cubic inches (in<sup>3</sup>), cubic yards (yd<sup>3</sup>), cubic centimeters, (cm<sup>3</sup>), etc.