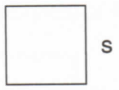
LIST 130

Area Formulas for Basic Figures

Area is the space inside a region. The following formulas can help you find the areas of various figures.

Area of a Square

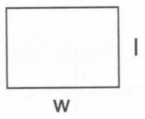
▶ Multiply the length of one side by another.



$A = s^2$

Rectangle

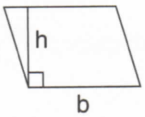
▶ Multiply length by width.



$A = lw$

Area of a Parallelogram

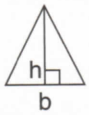
▶ Multiply the length of the base by the height.



$A = bh$

Area of a Triangle

▶ Multiply $\frac{1}{2}$ by the length of the base and the height.



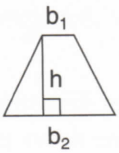
$A = \frac{1}{2}bh$

Area of a Trapezoid

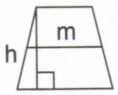
▶ Add the lengths of parallel bases.
▶ Multiply this sum by the height.
▶ Divide the product by 2.

or

▶ Multiply the height by the length of the median. (The median is parallel to its bases and equals $\frac{1}{2}$ the sum of the bases.)



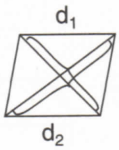
$A = \frac{(b_1 + b_2)h}{2}$



$A = mh$

Area of a Rhombus

▶ Multiply the lengths of the diagonals. Divide by 2.



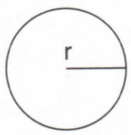
$A = \frac{d_1 d_2}{2}$

Area of a Circle

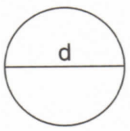
▶ Square the length of the radius.
▶ Multiply by π. $\left(\pi \approx 3.14 \text{ or } \frac{22}{7}\right)$

or

▶ Divide the length of the diameter by 2, square the quotient, and multiply by π.



$A = \pi r^2$



$A = \pi\left(\frac{d}{2}\right)^2$