

Area and Perimeter Formula Reference

Use each labelled diagram with its stated assumptions. Area is measured in square units; perimeter and circumference are measured in linear units.

Every diagram is illustrative and is not a measurement scale.

Square

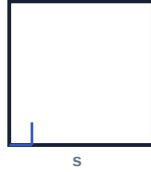
Area: $A = s^2$

Perimeter: $P = 4s$

Four equal sides and four right angles.

s = side length

Area: square units · Perimeter: linear units



Rectangle

Area: $A = lw$

Perimeter: $P = 2(l + w)$

Opposite sides are equal; all four angles are right angles.

l = length; w = width

Area: square units · Perimeter: linear units



Triangle

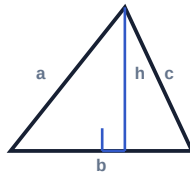
Area: $A = bh/2$

Perimeter: $P = a + b + c$

Choose side b as the base; h meets its supporting line at 90 degrees.

a, b, c = side lengths; h = height perpendicular to base b

Area: square units · Perimeter: linear units



Parallelogram

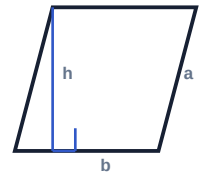
Area: $A = bh$

Perimeter: $P = 2(a + b)$

Opposite sides are parallel and equal; h is perpendicular to base b .

a, b = adjacent side lengths; h = height perpendicular to base b

Area: square units · Perimeter: linear units



Rhombus

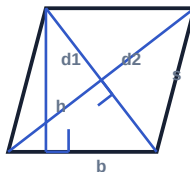
Area: $A = d_1d_2/2$ or $A = bh$

Perimeter: $P = 4s$

All four sides are equal; the diagonals are perpendicular.

d_1, d_2 = perpendicular diagonals; s = side length; b, h = base and perpendicular height

Area: square units · Perimeter: linear units



Kite

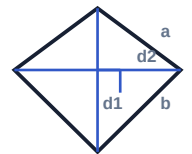
Area: $A = d_1d_2/2$

Perimeter: $P = 2(a + b)$

Each pair of adjacent equal sides has length a or b ; the diagonals are perpendicular.

d_1, d_2 = perpendicular diagonals; a, b = the two distinct adjacent side lengths

Area: square units · Perimeter: linear units



Area and Perimeter Formula Reference

Use each labelled diagram with its stated assumptions. Area is measured in square units; perimeter and circumference are measured in linear units.

Every diagram is illustrative and is not a measurement scale.

Trapezoid

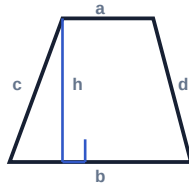
Area: $A = (a + b)h/2$

Perimeter: $P = a + b + c + d$

Bases a and b are parallel; h is their perpendicular distance.

a, b = parallel base lengths; c, d = other side lengths; h = height perpendicular to both bases

Area: square units · Perimeter: linear units



Circle

Area: $A = \pi r^2$

Circumference: $C = 2 \pi r = \pi d$

Use π for the ratio of circumference to diameter.

r = radius from center to circle; d = diameter through center; $d = 2r$

Area: square units · Circumference: linear units



Regular Polygon

Perimeter: $P = ns$

Area: $A = aP/2$

All sides and angles are equal; n is an integer at least 3.

n = number of equal sides; integer $n \geq 3$; s = side length; a = apothem from center perpendicular to a side

Area: square units · Perimeter: linear units

