

Equation of a circle

- ✓ $(x - h)^2 + (y - k)^2 = r^2$, with center (h, k) and radius r

Brahmagupta's formula

- ✓ For a cyclic quadrilateral with sides a, b, c, d : Area = $\sqrt{(s - a)(s - b)(s - c)(s - d)}$, where $s = \frac{a + b + c + d}{2}$

Sector area, arc length, and central angle

- ✓ $\frac{\text{sector area}}{\pi r^2} = \frac{\text{arc length}}{2\pi r} = \frac{\text{central angle}}{360^\circ}$

Sum of interior angles

- ✓ For a polygon with n sides: $(n - 2) \times 180^\circ$

Equations for 2D shapes

Shape	Area	Perimeter
Square	s^2	$4s$
Rectangle	lw	$2(l + w)$
Parallelogram	bh	$2(a + b)$
Rhombus	bh or $\frac{1}{2}d_1d_2$	$4s$
Trapezoid	$\frac{1}{2}(b_1 + b_2)h$	Sum of all sides
Kite	$\frac{1}{2}d_1d_2$	$2a + 2b$