

Semi-major axis

The *semi-major axis* is the length of the longest radius of an [ellipse](#), that is the greatest distance between the centre of the ellipse and the perimeter of the ellipse.

For the ellipse with equation

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

with $b \leq a$, the semi-major axis is a .

See also [semi-minor axis](#).