

Answer on Question #45311 – Math – Analytical Geometry

If the major axis is vertical with length $2a=18$, then $a=9$.

If the length of the minor axis is $2b=16$, then $b=8$.

The canonical equation of ellipse is $\frac{x^2}{b^2} + \frac{y^2}{a^2} = 1$, where $a > b$, the major axis is horizontal.

In this question the major axis is vertical and the equation of ellipse is

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

$$\frac{x^2}{8^2} + \frac{y^2}{9^2} = 1.$$

