

Answer on Question #46882 – Math – Analytic Geometry

Question:

Find the center, vertices, and foci of the ellipse with equation

$$\frac{x^2}{100} + \frac{y^2}{36} = 1.$$

Solution:

The center of the ellipse is (0;0).

The vertices are: (-10, 0), (10, 0), (0, 6), (0, -6).

The eccentricity is $c = \sqrt{100 - 36} = \sqrt{64} = 8$, so the two foci are: (-8, 0) and (8, 0).