

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Find the standard form of the equation of the hyperbola satisfying the given conditions.

1) Foci: $(-8, 0)$, $(8, 0)$; vertices: $(-6, 0)$, $(6, 0)$ 1) _____

2) Endpoints of transverse axis: $(0, -10)$, $(0, 10)$; asymptote: $y = \frac{5}{8}x$ 2) _____

3) Foci: $(0, -4)$, $(0, 4)$; vertices: $(0, -3)$, $(0, 3)$ 3) _____

4) Endpoints of transverse axis: $(-3, 0)$, $(3, 0)$; foci: $(-8, 0)$, $(8, 0)$ 4) _____

Answer Key

Testname: UNTITLED3

$$1) \frac{x^2}{36} - \frac{y^2}{28} = 1$$

$$2) \frac{y^2}{100} - \frac{x^2}{256} = 1$$

$$3) \frac{y^2}{9} - \frac{x^2}{7} = 1$$

$$4) \frac{x^2}{9} - \frac{y^2}{55} = 1$$