

Precalculus

8.4 Odd Answers

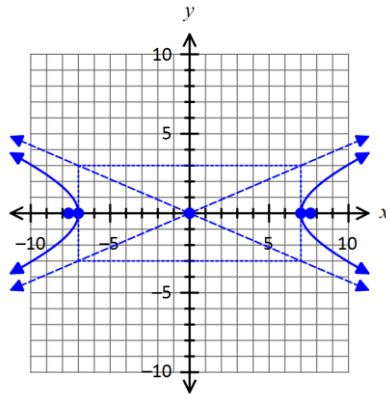
1. Center: $(0,0)$

Vertices: $(-7,0), (7,0)$

Foci: $(-\sqrt{58},0), (\sqrt{58},0)$

Transverse Axis: $y = 0$ (x -axis)

Asymptotes: $y = \pm \frac{3}{7}x$



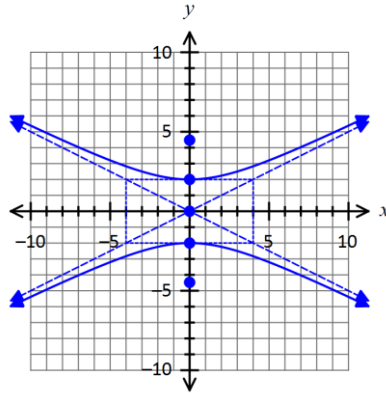
3. Center: $(0,0)$

Vertices: $(0,-2), (0,2)$

Foci: $(0,-2\sqrt{5}), (0,2\sqrt{5})$

Transverse Axis: $x = 0$ (y -axis)

Asymptotes: $y = \pm \frac{1}{2}x$



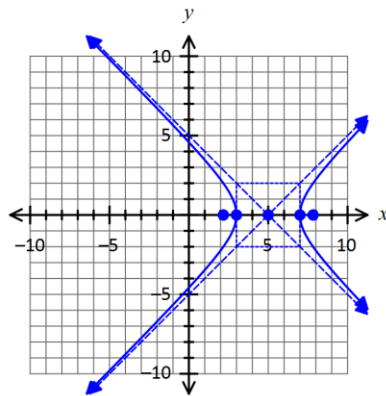
5. Center: $(5,0)$

Vertices: $(3,0), (7,0)$

Foci: $(5-2\sqrt{2},0), (5+2\sqrt{2},0)$

Transverse Axis: $y = 0$ (x -axis)

Asymptotes: $y = \pm(x-5)$



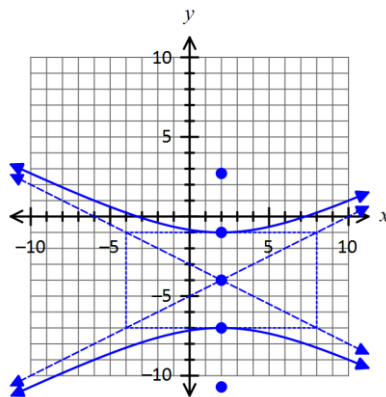
7. Center: $(2,-4)$

Vertices: $(2,-7), (2,-1)$

Foci: $(2,-4-3\sqrt{5}), (2,-4+3\sqrt{5})$

Transverse Axis: $x = 2$

Asymptotes: $y + 4 = \pm \frac{1}{2}(x - 2)$



$$9. \frac{(x-9)^2}{100} + \frac{(y-3)^2}{25} = 1$$

Center: (9,3)

Vertices: (-1,3), (19,3)

Foci: $(9-5\sqrt{5}, 3)$, $(9+5\sqrt{5}, 3)$

Asymptotes: $y-3 = \pm \frac{1}{2}(x-9)$

$$11. \frac{(y+5)^2}{121} - \frac{x^2}{4} = 1$$

Center: (0,-5)

Vertices: (0,-16), (0,6)

Foci: $(0, -5-5\sqrt{5})$, $(0, -5+5\sqrt{5})$

Asymptotes: $y+5 = \pm \frac{11}{2}x$

$$13. \frac{(x-4)^2}{4} - \frac{(y+1)^2}{5} = 1$$

$$15. (x-5)^2 - \frac{(y-7)^2}{3} = 1$$

$$17. \frac{(y+1)^2}{4} - \frac{(x-1)^2}{9} = 1$$