Name _____ Class _____ Date _____

10-5 Practice (continued) Form G

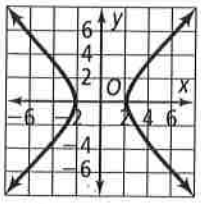
Hyperbolas

Find the vertices, foci, and asymptotes of each hyperbola. Then sketch the graph.

13. $\frac{x^2}{4} - \frac{y^2}{4} = 1$

$(\pm 2, 0), (\pm 2\sqrt{2}, 0)$,

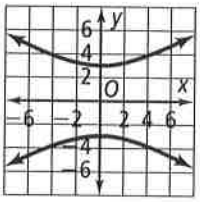
$y = \pm x$



14. $\frac{y^2}{9} - \frac{x^2}{25} = 1$

$(0, \pm 3), (0, \pm \sqrt{34})$,

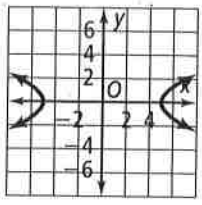
$y = \pm \frac{3}{5}x$



15. $\frac{x^2}{25} - \frac{y^2}{4} = 1$

$(\pm 5, 0), (\pm \sqrt{29}, 0)$,

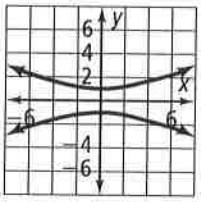
$y = \pm \frac{2}{5}x$



16. $y^2 - \frac{x^2}{9} = 1$

$(0, \pm 1), (0, \pm \sqrt{10})$,

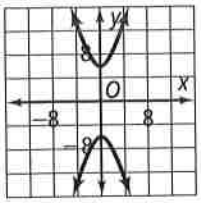
$y = \pm \frac{1}{3}x$



17. $4y^2 - 36x^2 = 144$

$(0, \pm 6), (0, \pm 2\sqrt{10})$,

$y = \pm 3x$



18. $x^2 - 9y^2 = 9$

$(\pm 3, 0), (\pm \sqrt{10}, 0)$,

$y = \pm \frac{1}{3}x$