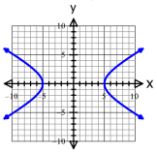
SM 2H 5.3 answers

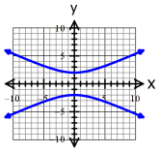
3. (0, 0), 5, 3, $\sqrt{34}$, (-5, 0) and (5, 0)

$(-\sqrt{34}, 0) and\ (\sqrt{34}, 0), \pm\frac{3}{5}$



4. (0, 0), 2, 4, $2\sqrt{5}$, (0, -2) and (0, 2)

$(0, -2\sqrt{5}) and\ (0, 2\sqrt{5}), \pm\frac{1}{2}$

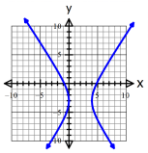


5. $\frac{x^2}{1} - \frac{y^2}{8} = 1$

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

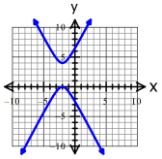
7. (2, -3), 2, 3, $\sqrt{13}$, (0, -3) and (4, -3)

$(2 - \sqrt{13}, -3) and\ (2 + \sqrt{13}, -3), \pm\frac{3}{2}$



8. (-2, 2), 2, 1, $\sqrt{5}$, (-2, 4) and (-2, 0)

$(-2, 2 - \sqrt{5}) and\ (-2, 2 + \sqrt{5}), \pm 2$

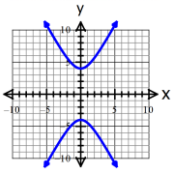


9. $\frac{(x-4)^2}{4} - \frac{(y+1)^2}{5} = 1$

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

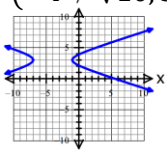
11. (0, 0), 4, 2, $2\sqrt{5}$, (0, -4) and (0, 4)

$(0, -2\sqrt{5}) and\ (0, 2\sqrt{5}), \pm 2$



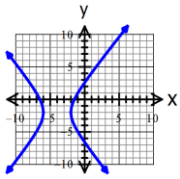
12. (-4, 3), 3, 1, $\sqrt{10}$, (-7, 3) and (-1, 3)

$(-4 - \sqrt{10}, 3) and\ (-4 + \sqrt{10}, 3), \pm\frac{1}{3}$



13. (-4, -2), 2, $\sqrt{7}$, $\sqrt{11}$, (-2, -2) and (-6, 2)

$(-4 - \sqrt{11}, -2) and\ (-4 + \sqrt{11}, -2) \pm\frac{\sqrt{7}}{2}$



14. $\frac{(y-1)^2}{9} - \frac{(x+3)^2}{16} = 1$

15. $\frac{(y+4)^2}{1} - \frac{(x-3)^2}{8} = 1$