

PreCalculus

WS: 9.2, 9.3 Quiz Review ANSWER KEY

$$1. \frac{(x+3)^2}{81} + \frac{(y-18)^2}{324} = 1$$

$$2. \frac{(x-1)^2}{25} - \frac{(y+2)^2}{4} = 1$$

$$3. \frac{(x-5)^2}{16} + (y+3)^2 = 1$$

$$4. \frac{(x+4)^2}{9} - \frac{(y-1)^2}{25} = 1$$

5. Center: (-5, 1); Vertices: (-5, 13), (-5, -11); Co-Vertices: (-14, 1), (4, 1); Foci: $(-5, 1 \pm 3\sqrt{7})$

6. Center: (-1, 1); Lines Containing Axes: Transverse $x = -1$, Conjugate: $y = 1$; Vertices: (-1, 4), (-1, -2);
Foci: (-1, -4), (-1, 6); Equations of Asymptotes: $y = 1 \pm \frac{3}{4}(x+1)$

7. Conic: Hyperbola; Center: (-1, 3); Foci: $(-1 \pm \sqrt{13}, 3)$; Vertices: (-4, 3), (2, 3)

8. Conic: Ellipse; Center: (-5, 4); Foci: $(-5 \pm \sqrt{15}, 4)$; Vertices: (-9, 4), (-1, 4)

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

$$10. \frac{(x-7)^2}{169} + \frac{(y+10)^2}{49} = 1$$

$$11. \frac{(x-8)^2}{16} + \frac{(y+2)^2}{81} = 1$$

$$12. \frac{(x-4)^2}{64} + \frac{(y-7)^2}{121} = 1$$

$$13. \frac{(y-2)^2}{144} - \frac{(x-8)^2}{9} = 1$$

$$14. \frac{(x+7)^2}{25} - \frac{(y-2)^2}{49} = 1$$

$$15. \frac{(x-2)^2}{16} - \frac{(y+3)^2}{49} = 1$$

$$16. \frac{(y-1)^2}{4} - \frac{(x+2)^2}{4} = 1$$

$$17. \frac{x^2}{100} + \frac{y^2}{36} = 1$$