

Conic Application Worksheet

1. $25/16$ or 1.5625 feet

2. $9/8$ or 1.125 feet

3. 1 inch

4. $4\sqrt{2}$

5. 20 ft

6. 15.625 ft.

7. 0.78125 ft.

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

9. 25.2 ft

10. $\frac{x^2}{3600} + \frac{y^2}{625} = 1$

$x = 10, 24.65$

$x = 30, 21.65$

$x = 50, 13.82$

11. 16.67 ft.

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

24. $M(-3, 2), V(-2, 1)(-2, 5), F(-2, 3 \pm 2\sqrt{2}), A: y - 3 = \pm(x + 2)$

25. $M(3, -2), V(1, -2)(5, -2), F(3 \pm \sqrt{20}, -2), A: y + 2 = \pm 2(x - 3)$

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

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

15. $\frac{(x-2)^2}{25} + \frac{(y+2)^2}{21} = 1$

16. $\frac{(x-2)^2}{16} + \frac{(y-1)^2}{7} = 1$

17. $\frac{(y+4)^2}{4} - \frac{(x+3)^2}{12} = 1$

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

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

20. $V(-1, 2), F(1, 2), D: x = -3$

21. $V(-3, -2), F(-3, -1), D: y = -3$

22. $M(3, -1), V(3, -4)(3, 2), F(3, -1 \pm \sqrt{5})$

23. $M(1, -2), V(1, 1)(1, -5), F(1, -2 \pm \sqrt{5})$