

Midterm Review Answers

1. $\frac{\pi}{3} - \frac{11\pi}{3}$

2. $\frac{\pi}{5}$

3. $x = \frac{65\pi}{36}$

4. $\sqrt{3}$

5. $\frac{3}{4}$

6. Q II

7. $130^\circ, 230^\circ$

8. 8π

9. Reflection over x-axis, vertical stretch by 4, phase shift of $-\frac{\pi}{6}$

10. -60° or $-\frac{\pi}{3}$

11. 1663.3 ft

12. 2×3

13. $\begin{bmatrix} 4 & 13 \\ 11 & -10 \end{bmatrix}$

14. $\begin{bmatrix} -12 & 1 \\ -5 & -2 \end{bmatrix}$

15. $\begin{bmatrix} 14 & 17 \\ 11 & 0 \end{bmatrix}$

16. $\begin{bmatrix} 0 & -\frac{1}{2} \\ 1 & 2 \end{bmatrix}$

17. 8

18. $V(5, -8)$

19. $(x - 3)^2 = 40(y - 2)$

20. $\frac{(x-6)^2}{64} + \frac{(y-5)^2}{32} = 1$

21. $\frac{x^2}{25} + \frac{(y-6)^2}{12} = 1$

22. Ellipse

23. $-\frac{8}{5}$

24. $y = \csc\left(\frac{x}{3} - 3\pi\right)$

25. II