Honors Math II

Unit 9 day 6 graphing sine

Name_____

Period_____Date_____

Using radians, find the amplitude, period, phase shift and vertical translation of each function.

1. $y = 9sin\theta$

2. $y = 6sin\theta$

3. $y = -7sin\theta$

4. $y = \frac{1}{7}sin\theta$

5. $y = 8sin2\theta$

6. $y = -3sin\frac{\theta}{5}$

7. $y = 4sin3x$

8. $y = 9sin5x$

9. $y = 2sin\left(x + \frac{\pi}{4}\right)$

10. $y = \frac{1}{8}sin\left(2x + \frac{\pi}{6}\right) + 1$

11. $y = 9sin\left(2\theta - \frac{5\pi}{4}\right) - 4$

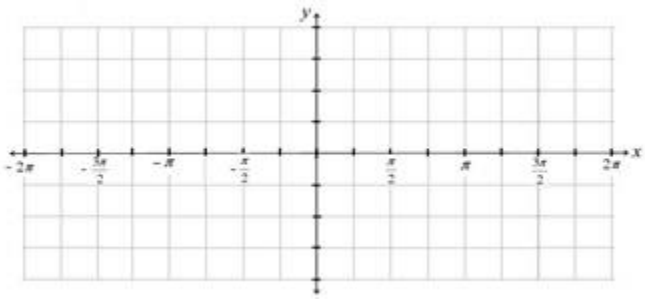
12. $y = 2sin\left(\frac{\theta}{7} + \frac{3\pi}{4}\right) - 4$

13. $y = -sin2\left(x - \frac{\pi}{2}\right) + 3$

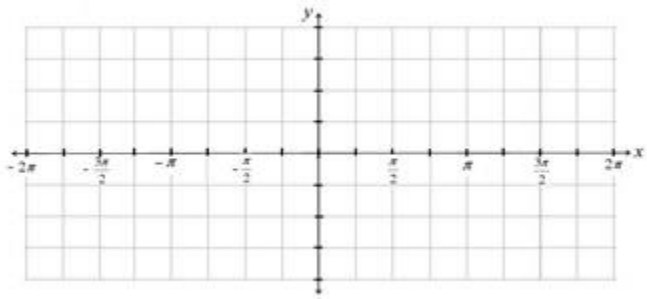
14. $y = 3sin4\left(\theta - \frac{\pi}{3}\right) + 1$

Graph each function using radians.

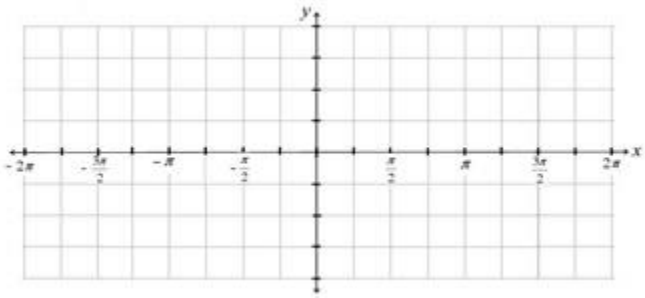
15. $y = 4sin\theta$



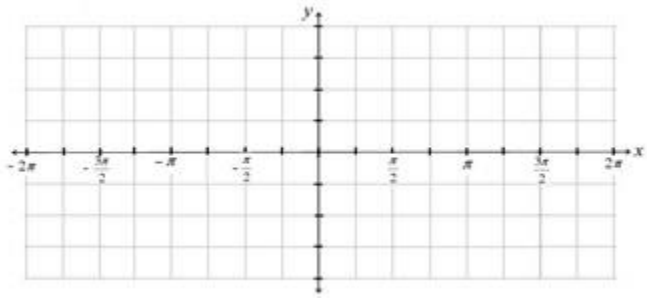
16. $y = -\frac{1}{2}sin\theta$



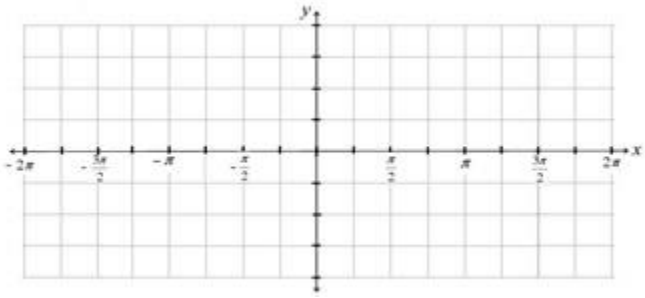
19. $y = 4sin2x$



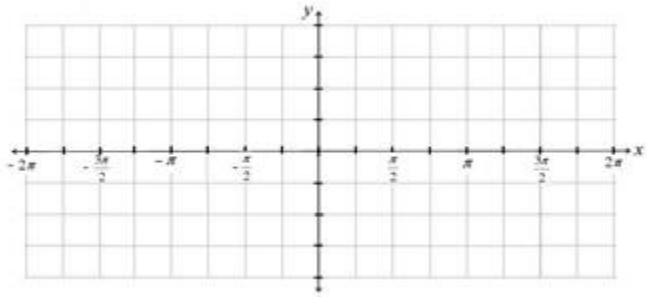
20. $y = -4sin2\theta$



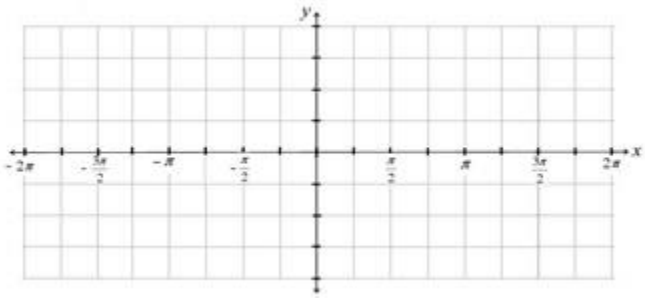
21. $y = 2sin\left(\theta + \frac{\pi}{2}\right)$



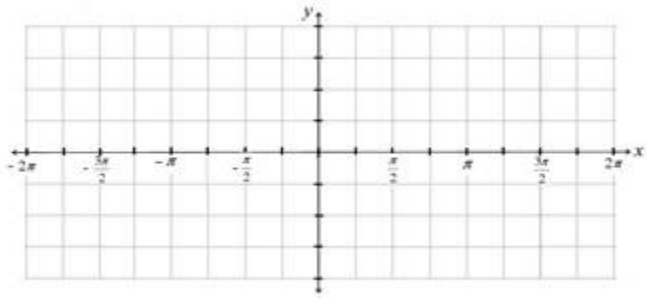
22. $y = -3\sin\left(2x + \frac{\pi}{2}\right)$



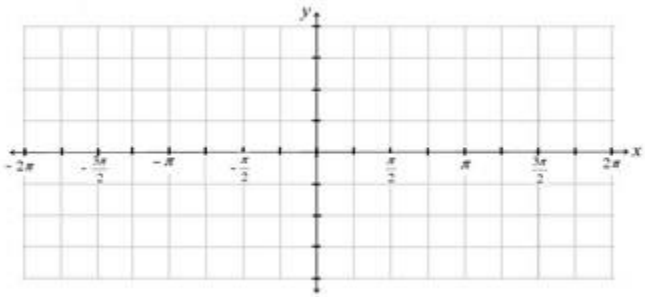
25. $y = 3sinx + 1$



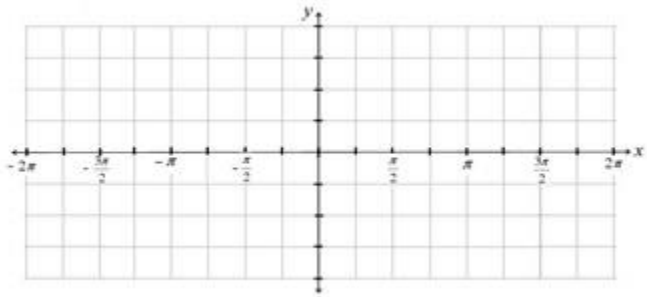
26. $y = -sinx - 2$



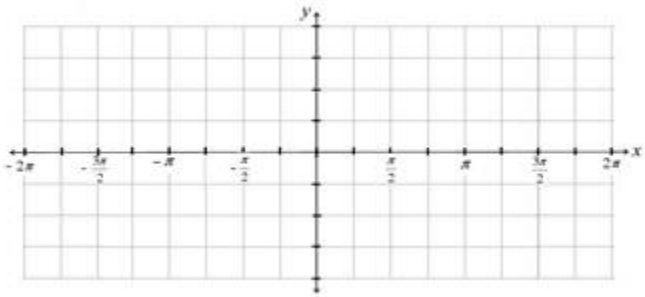
27. $y = 4sin\left(\theta - \frac{\pi}{4}\right)$



28. $y = 3sin\left(\theta + \frac{\pi}{2}\right) - 1$



30. $y = -sin(x + \pi) + 2$



32. $y = 3\sin\left(x + \frac{3\pi}{4}\right) - 2$