

Modeling Phenomena with Trigonometric Functions - Independent Practice Worksheet

Complete all the problems.

1. Choose the following function which has the period of $\frac{6\pi}{5}$.

A) $y = 7\cos\left(\frac{8x}{8}\right)$ B) $y = 4\tan\left(\frac{9x}{4}\right)$ C) $y = 12\sin\left(\frac{5x}{3}\right)$

2. What is the amplitude of the function $y = 7\tan(4x)$

A) 9 B) 7 C) 1 D) 6

3. What is the amplitude of the function $y = -5\tan(9\pi + 6)$?

A) 9 B) -2 C) 7 D) -5

4. Choose the one which has the period of $\frac{2\pi}{3}$.

A) $y = 8\tan\left(\frac{4x}{3}\right)$ B) $y = 8\cos\left(\frac{6x}{2}\right)$ C) $y = 8\sin\left(\frac{5x}{9}\right)$

5. Choose the one which has the period of $\frac{\pi}{6}$.

A) $y = 2\tan(6x)$ B) $y = 7\sin\left(\frac{9x}{10}\right)$ C) $y = 5\cos(2x)$

6. Calculate the amplitude of function $y = 9\tan(12\pi + 6)$

7. Calculate the period of $y = 7\sin\left(\frac{13x}{6}\right)$

8. Calculate the amplitude of function $y = 4\cos\left(\frac{6x}{7}\right)$

9. Calculate the period of $y = 11\tan\left(\frac{6x}{8}\right)$

10. Calculate the amplitude of function $y = 8\sin(7x - 4)$

