

This function and the graphed function both have 4 as the amplitude. However, they have different periods. The graphed function has a period of  $\frac{2\pi}{5}$ , while  $y = 4 \cdot \cos\left(\frac{1}{5}x\right)$  has a period of  $\frac{2\pi}{\frac{1}{5}} = \frac{2\pi}{1} \cdot \frac{5}{1} = 10\pi$ . The correct answer is  $y = 4 \cdot \cos 5x$ .