

This is the graph of a sine function, and it has the correct amplitude and period. However, it has been reflected over the x -axis, which would mean it has a negative coefficient. The function $y = \frac{3}{2}\sin\left(\frac{1}{2}x\right)$ has a positive coefficient, so its graph would have a hill just to the right of the y -axis. The correct answer is the graph with one hill over the interval $[0, 2\pi]$.