

The maximum value of the cosine function is 1. It has this value at $x = 0$ and then again at the end of one cycle.

The value of x at that point is the length of one cycle, or one period of $y = \cos\left(\frac{1}{2}x\right)$. The period of $y = a\cos bx$ is

$\frac{2\pi}{|b|}$, so the number we are looking for is:

$$\frac{2\pi}{\left|\frac{1}{2}\right|} = \frac{2\pi}{\frac{1}{2}} = \frac{2\pi}{1} \cdot \frac{2}{1} = 4\pi$$