This is a value of *x* where  $y = \cos\left(\frac{1}{2}x\right)$  is at its maximum, but it is not *positive*. The next point where the maximum occurs is at the end of one cycle. The value of *x* at that point is the length of one cycle, or one period of  $y = \cos\left(\frac{1}{2}x\right)$ .