According to Taylor series, $\cos(x) = \lim_{n\to\infty} \sum_{i=1}^{n} (-1)^{i-1} \frac{(x)^{2(i-1)}}{\{2(i-1)\}!}$

1) $\cos(0.5) = 1 - \frac{0.5^2}{2!} = 0.8750000$

2) $\cos(0.5) = 1 - \frac{0.5^2}{2!} + \frac{0.5^4}{4!} = 0.8776042$

3) $\cos(0.5) = 1 - \frac{0.5^2}{2!} + \frac{0.5^4}{4!} - \frac{0.5^6}{6!} = 0.8775825$

4) $\cos(0.5) = 1 - \frac{0.5^2}{2!} + \frac{0.5^4}{4!} - \frac{0.5^6}{6!} + \frac{0.5^8}{8!} = 0.8775826$

5) $\cos(0.5) = 1 - \frac{0.5^2}{2!} + \frac{0.5^4}{4!} - \frac{0.5^6}{6!} + \frac{0.5^8}{8!} - \frac{0.5^{10}}{10!} = 0.8775826$

$\Rightarrow \cos(0.5) = \underline{0.8775826}$