Answer on Question #62084 – Math – Trigonometry

Question

cos55 degrees a solucation with proof giving the answer fast.

Solution

Given

$$\cos 55^{\circ} = \cos\left(\frac{\pi}{180} \times 55\right) = \cos\left(\frac{11\pi}{36}\right).$$

Using Taylor's formula for

$$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \cdots$$

and substituting $x = \frac{11\pi}{36}$ obtain

$$\cos(55^{\circ}) = 0.57357643635 \ldots$$

Answer: $0.57357643635.$