

Answer on Question #57982 – Math – Trigonometry

Question

1. There are values of t so that the equation $\cos t = 5/4$ holds.

A: true

B: false

Solution

There are no values of t so that the equation $\cos t = 5/4$ holds, because

$$-1 \leq \cos(t) \leq 1$$

and

$$\frac{5}{4} > 1.$$

Answer: B: false.

Question

2. There are values of t so that $\sin t = 0.6$ and $\cos t = 0.8$

A: true

B: false

Solution

There are values of t so that $\sin t = 0.6$ and $\cos t = 0.8$, because $\sin t = 0.6$ and $\cos t = 0.8$ satisfy the Pythagorean identity:

$$(0.6)^2 + (0.8)^2 = 0.36 + 0.64 = 1$$

Answer: A: true.