NC EMPT'S QUESTION of the week

Question 10
November 4, 2024

Given right ΔABC with $\angle C = 90°, \angle A = 50°, AC = 5, BC = x$, and $AB = y$, which equation expresses a correct trigonometric ratio for the triangle?

A. $\cos 50° = \frac{y}{5}$ B. $\sin 50° = \frac{x}{y}$ C. $\tan 40° = \frac{x}{5}$ D. $\cos 40° = \frac{5}{y}$ E. $\tan 50° = \frac{5}{x}$

Last Week's Answer

A tire has a circumference of 30 inches. How many revolutions does it make as it rolls 33 feet?

A. 1.1 B. $\frac{15}{\pi}$ C. 13.2 D. 15π E. 82.5

In one revolution, or one turn around the circumference of the tire, the tire travels 30 inches or Convert 30 inches to feet: 30÷12=2.5 ft.

Then: $33ft \div 2\frac{1}{2}ft = \frac{33}{1} \div \frac{5}{2} = \frac{33}{1} \times \frac{2}{5} = \frac{66}{5}$ =13.2 revolutions

Each week, we'll reveal the answer to the previous week's question!

Visit us at WWW.NCEMPT.ORG
for additional resources or to register to test for FREE!