

Answer on question 35931 – Math – Trigonometry

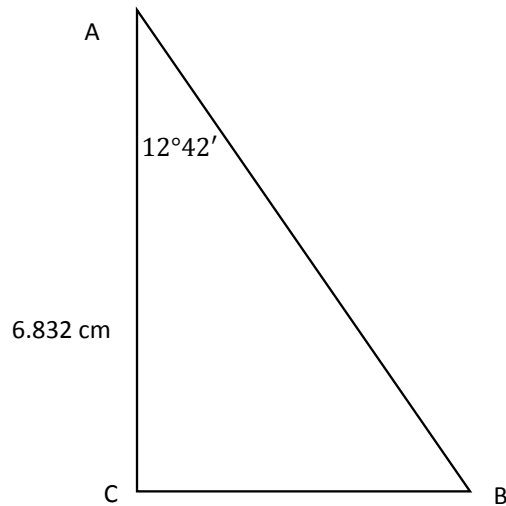
ABC with C=90degree. solve for all the missing parts using the given info; A=12degree 42', b=6.832cm

B=_____

a=

c=

Solution



As we know the sum of acute angles of the right triangle is 90° . Therefore,

Angle $B = 90^\circ - 12^\circ 42' = 77^\circ 18'$.

From the definition of tangent we have

$$\tan A = \frac{a}{b}$$

From this equality we get

$$a = b \tan A = 6.832 * \tan 12^\circ 42' \approx 0.225.$$

Using Pythagorean Theorem we obtain

$$c = \sqrt{a^2 + b^2} = \sqrt{6.832^2 + 0.225^2} \approx 6.836.$$

Answer: B= $77^\circ 18'$

a=0.225 cm

c=6.836 cm