

Answer on Question #49552 – Math – Trigonometry

if $\tan 40^\circ + 2 \tan 10^\circ = \cot A$ then $A =$

Solution

$$\tan 40^\circ + 2 \tan 10^\circ = \cot A$$

Using calculator:

$$\cot A = \tan 40^\circ + 2 \tan 10^\circ = \tan\left(\frac{2\pi}{9}\right) + 2 \tan\left(\frac{\pi}{18}\right) = 1.192.$$

Using inverse trigonometric function, obtain

$$A = \operatorname{arccot}(1.192) = 40^\circ$$

Answer: $A = 40^\circ$.