2.3. Finding Trig Function Values using a calculator

Wednesday, February 6, 2019 10:24 AM

(1) Angle is given, find trig function values

E.g. $\sin(41°30') = \sin\left(41° + \left(\frac{30}{60}\right)°\right)$

≈ 0.66262

E.g. $\cot(-68°13') = \dfrac{1}{\tan\left(-\left(68° + \frac{13}{60}°\right)\right)}$

$\simeq -0.3996\ldots$

E.g. $\dfrac{\sec(64°)}{\sin(64°) + \csc(64°)}$

1.13412...

(2) Trig Function Values are given, find angles

E.g. Find an acute angle θ such that

$\cos\theta = \frac{1}{2}$

2nd → cos → $\frac{1}{2}$ → Ans: 60°.

E.g. $\sec\theta = 3$

$$\frac{1}{\cos\theta} = 3 \rightarrow \cos\theta = \frac{1}{3}$$

$2^{nd} \rightarrow \cos \rightarrow \frac{1}{3} \rightarrow \boxed{70.52878^\circ}$

E.g. $\cot\beta = 5.9812654$

$$\tan\beta = \frac{1}{5.9812654}$$

$2^{nd} \rightarrow \tan \rightarrow \frac{1}{5.9812654} \rightarrow \boxed{Ans = 9.49142^\circ}$