Topic: Trig functions of real numbers

Question: Evaluate $\cos(1.25)$, rounded to four decimal places.

Answer choices:

A   0.9490

B   0.3

C   0.3153

D   0.9998

Solution: C

We'll use a calculator to evaluate the cosine function at 1.25, making sure the calculator is set to radian mode.

$$\cos(1.25) \approx 0.3153$$

Topic: Trig functions of real numbers

Question: Evaluate $\csc(0.87)$, rounded to four decimal places.

Answer choices:

A   1.3084

B   0.7643

C   0.0152

D   65.7895

Solution: A

We'll use a calculator to evaluate the circular function at 0.87, making sure the calculator is set to radian mode.

$$\csc\theta = \frac{1}{\sin\theta}$$

$$\csc(0.87) = \frac{1}{0.7643}$$

$$\csc(0.87) = \approx 1.3084$$

Topic: Trig functions of real numbers

Question: Evaluate $\tan(2.78)$, rounded to three decimal places.

Answer choices:

A 0.379

B 0.354

C -0.379

D -0.935

Solution: C

We'll use a calculator to evaluate the tangent function at 2.78, making sure the calculator is set to radian mode.

$$\tan\theta = \frac{\sin\theta}{\cos\theta}$$

$$\tan(2.78) = \frac{0.354}{-0.935}$$

$$\tan(2.78) = \approx -0.379$$