

Name :

Class :

Trigonometric Expressions



A trigonometric expression is a mathematical expression that involves trigonometric functions, such as: Sine (sin) Cosine (cos) Tangent (tan) Cotangent (cot) Secant (sec) Cosecant (csc).

Sine	Sin	$\sin \angle B = \frac{\text{Opposite}}{\text{Hypotenuse}}$
Cosine	Cos	$\cos \angle B = \frac{\text{Adjacent}}{\text{Hypotenuse}}$
Tangent	Tan	$\tan \angle B = \frac{\text{Opposite}}{\text{Adjacent}}$
Secant	Sec	$\sec \angle B = \frac{\text{Hypotenuse}}{\text{Adjacent}}$
Cosecant	Csc	$\csc \angle B = \frac{\text{Hypotenuse}}{\text{Opposite}}$
Cotangent	Cot	$\cot \angle B = \frac{\text{Adjacent}}{\text{Opposite}}$

Evaluate each expression. Round your answer to four decimal places.

1) $\frac{\sin^2 74^\circ - \tan^3 43^\circ}{9}$

2) $\frac{\csc \frac{\pi}{10} \cos \frac{7\pi}{36} \sec \frac{7\pi}{36}}{8 \cos \frac{\pi}{15} + \tan \frac{\pi}{10}}$

3) $\cos^2 55^\circ + \tan^2 84^\circ + \cot^2 92^\circ$

4) $6.8 \csc 11^\circ (\sec 36^\circ + \cos 78^\circ)$

5) $3.3 - 4 \cot \frac{5\pi}{36}$

6) $\csc 9^\circ + \frac{10}{\sec 138^\circ}$