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

Evaluate each expression.

1) $\dfrac{\cot\frac{\pi}{3}\sec\frac{\pi}{6}}{2}$

2) $12\cot 45^0 - \csc 30^0 + \sec 45^0$

3) $\csc 90^0 \sec 0^0 + \frac{1}{5}$

4) $\sec^3\frac{\pi}{3} - \cot^3\frac{\pi}{4}$

5) $\sec^2 0^0 + \cot^2 30^0 \csc^2 60^0$

6) $\cot 60^0 + \sec 30^0 + \dfrac{\csc 45^0}{\sec 30^0}$