

Trigonometry (continued)

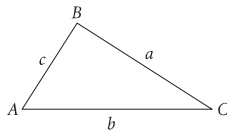
The Law of Sines

In any $\triangle ABC$,

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

The Law of Cosines

In any $\triangle ABC$,



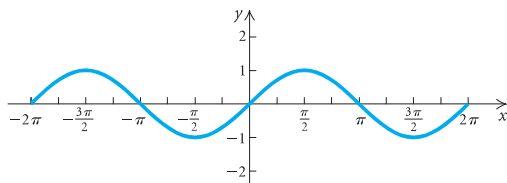
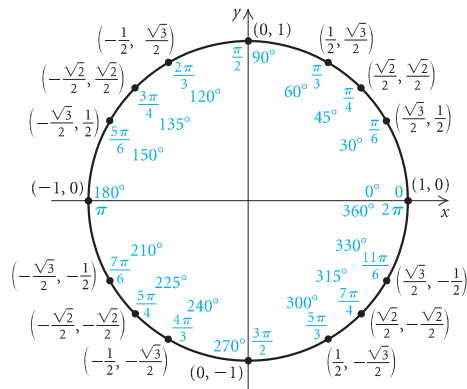
$$a^2 = b^2 + c^2 - 2bc \cos A,$$

$$b^2 = a^2 + c^2 - 2ac \cos B,$$

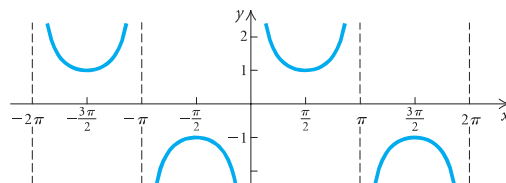
$$c^2 = a^2 + b^2 - 2ab \cos C.$$

Graphs of Trigonometric Functions

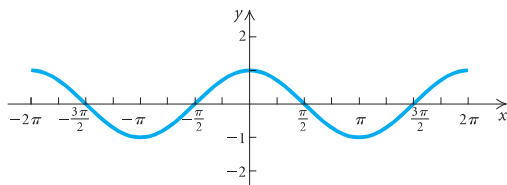
Trigonometric Function Values of Special Angles



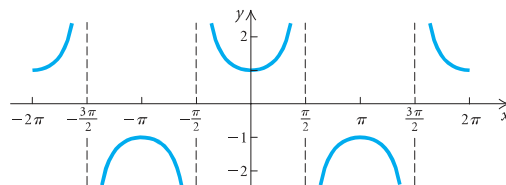
The sine function: $f(x) = \sin x$



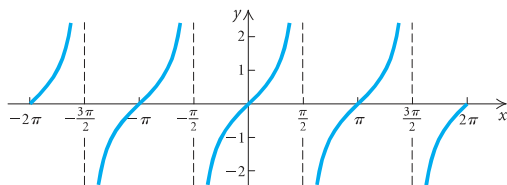
The cosecant function: $f(x) = \csc x$



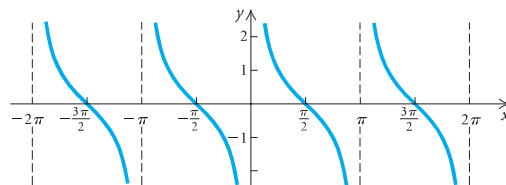
The cosine function: $f(x) = \cos x$



The secant function: $f(x) = \sec x$



The tangent function: $f(x) = \tan x$



The cotangent function: $f(x) = \cot x$