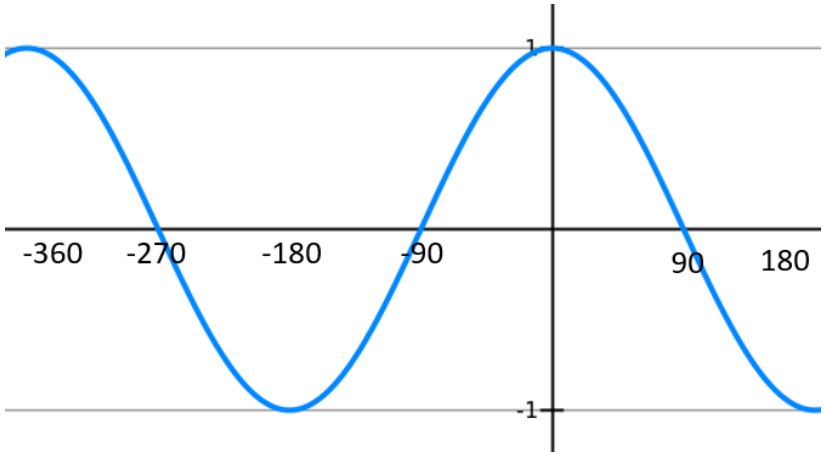
9.5) Graphs of sine, cosine and tangent

Worked example

Sketch the graph of $y = \sin x, -180 \leq x \leq 360°$

Your turn

Sketch the graph of $y = \cos x, -360 \leq x \leq 180°$

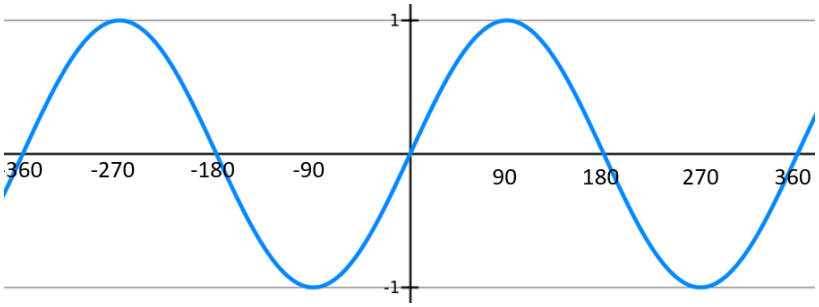


Worked example

A sketch of $y = \sin x\,, -360° \leq x \leq 360°$ is shown.

Given that $\sin 30 = \frac{1}{2}$, find:

a) $\sin(150°)$
b) $\sin(-300°)$
c) $\sin(330°)$
d) $\sin(-210°)$

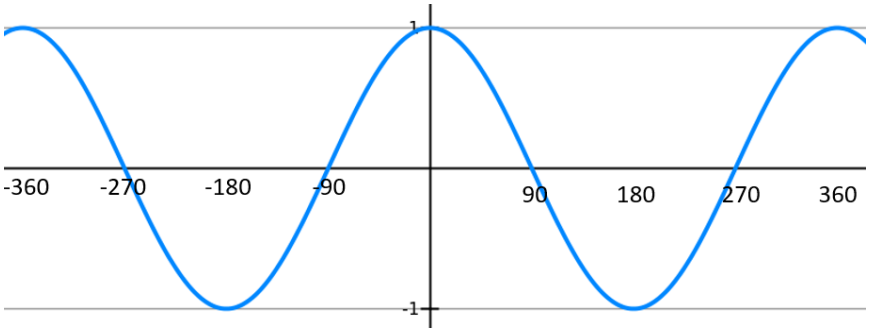


Your turn

A sketch of $y = \cos x\,, -360° \leq x \leq 360°$ is shown.

Given that $\cos 30 = \frac{\sqrt{3}}{2}$, find:

a) $\cos(-30°)$
b) $\cos(330°)$
c) $\cos(150°)$
d) $\cos(-210°)$



a) $\frac{\sqrt{3}}{2}$
b) $\frac{\sqrt{3}}{2}$
c) $-\frac{\sqrt{3}}{2}$
d) $-\frac{\sqrt{3}}{2}$

Worked example

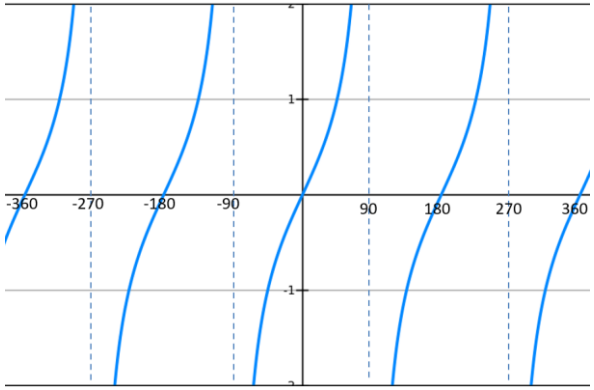
A sketch of $y = \tan x$, $-360° \leq x \leq 360°$ is shown.

Given that $\tan 60 = \sqrt{3}$, find:

a) $\tan(-60°)$

b) $\tan(-300°)$

c) $\tan(120°)$



Your turn

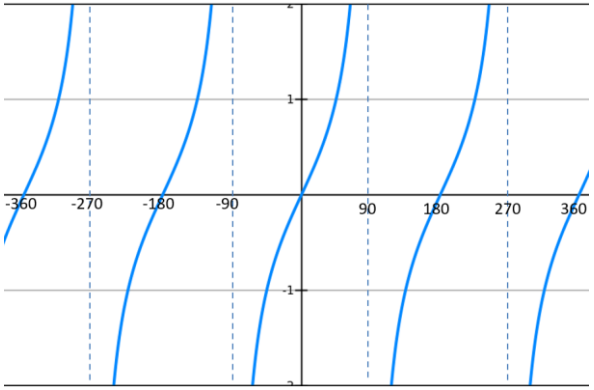
A sketch of $y = \tan x$, $-360° \leq x \leq 360°$ is shown.

Given that $\tan 30 = \frac{\sqrt{3}}{3}$, find:

a) $\tan(-30°)$

b) $\tan(-330°)$

c) $\tan(150°)$



a) $-\frac{\sqrt{3}}{3}$

b) $\frac{\sqrt{3}}{3}$

c) $-\frac{\sqrt{3}}{3}$