

Transformation of Trigonometric Graphs

These follow the same rules as we had for normal graphs.

a) $y = \sin x + 1$

Move the graph up 1 = add 1 to the y coordinate

b) $y = \cos (x + 90^\circ)$

Move the graph left 90° = subtract 90° to the x coordinate

c) $y = 3 \cos x$

Stretch the graph vertically by 3 = multiply the y coordinate by 3

d) $y = \sin 2x$

Stretch the graph horizontally by $\frac{1}{2}$ = multiply the x coordinate by 2

e) $y = -\tan x$

Reflect the graph in the x-axis = change the sign of the y coordinate

f) $y = \cos (-x)$

Reflect the graph in the y-axis = change the sign of the x coordinate