

Work Sheet:

Simple equations: sine, cosine and tangent

Introductory Problems: (Video introduction)

Solve the following equations. (Work in degree measure)

1) $\sin(\alpha) = \frac{1}{2}$

2) $\cos(\alpha) = \frac{1}{2}$

3) $\tan(\alpha) = 1$

Problem 1

Work out all the possible solutions in degrees. Don't forget to make a sketch.

a) $\sin(\alpha) = \frac{\sqrt{3}}{2}$

b) $\cos(\alpha) = -\frac{1}{2}$

c) $\tan(\alpha) = \sqrt{3}$

d) $\cos(\alpha) = 0.3$

e) $\sin(\alpha) = -0.6$

f) $\tan(\alpha) = -\frac{3}{2}$

Problem 2

Work out all the possible solutions in radians. Don't forget to make a sketch.

a) $\sin(x) = \frac{1}{2}$

b) $\cos(x) = -\frac{1}{2}$

c) $\tan(x) = \frac{\sqrt{3}}{3}$

d) $\cos(x) = 0.4$

e) $\sin(x) = -0.3$

f) $\tan(x) = 4/5$