

W6 – 5.4 Solve Double Angle Trigonometric Equations

MHF4U

Determine solutions for each equation in the interval $0 \leq x \leq 2\pi$, to the nearest hundredth of a radian. Give exact answers where possible.

a) $\sin(2x) - 0.8 = 0$

b) $5 \sin(2x) - 3 = 0$

c) $-4 \sin(2x) + 3 = 0$

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

$$\mathbf{e)} \sin(4x) = \frac{1}{2}$$

$$\mathbf{f)} \sin(3x) = -\frac{\sqrt{3}}{2}$$

$$\mathbf{g)} \cos(4x) = -\frac{1}{\sqrt{2}}$$

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