Double Angle Formulae

$\sin 2A = 2\sin A\cos A$

$\cos 2A = 2\cos^2 A - 1$

$\quad\quad = 1 - 2\sin^2 A$

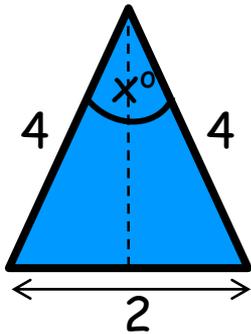$\quad\quad = \cos^2 A - \sin^2 A$

Addition Formulae

$\sin(A \pm B) = \sin A\cos B \pm \cos A\sin B$

$\cos(A \pm B) = \cos A\cos B \mp \sin A\sin B$

90°

180°

S	A ✓
T	C ✓

0°

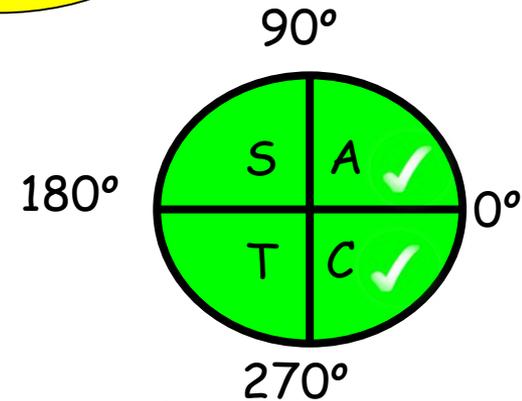270°

The exact value of sinx

x°

4   4

2

Trig Formulae and Trig equations

$\sin x = 2\sin(x/2)\cos(x/2)$

$\sin x = 2\left(\frac{1}{4} + \sqrt{(4^2 - 1^2)}\right)$

$\sin x = \frac{1}{2} + 2\sqrt{15})$

$3\cos^2 x - 5\cos x - 2 = 0$

Let p = cosx $3p^2 - 5p - 2 = 0$

$(3p + 1)(p - 2) = 0$

$p = \cos x = 1/3$ $\cos x = 2$

$x = \cos^{-1}(1/3)$ x = no sol^n

x = 109.5° and 250.5°