

	Solving trig equations	
1	Solve the equation $5 \sin x + 1 = 3$, for $0 \leq x \leq 360$	3
2	Solve the equation $7 \cos x - 5 = 0$, for $0 \leq x \leq 360$	3
3	Solve the equation $2 \tan x - 3 = 6$, for $0 \leq x \leq 360$	3
4	Solve the equation $7 \sin x + 2 = 0$, for $0 \leq x \leq 360$	3
5	Solve the equation $11 \cos x + 7 = 3$, for $0 \leq x \leq 360$	3
	15 marks	

	Solving trig equations – Answers		
1	Mark 1 rearrange equation $\sin x = \frac{2}{5}$ Mark 2 calculate value for x $x = 23.6^\circ$ Mark 3 calculate a second value for x $x = 156.4^\circ$ 2 marks will be given for $\sin x = \frac{4}{5}$, leading to $x = 53.1^\circ$ and 126.9°		3
2	Mark 1 rearrange equation $\cos x = \frac{5}{7}$ Mark 2 calculate value for x $x = 44.4^\circ$ Mark 3 calculate a second value for x $x = 315.6^\circ$ 2 marks will be given for $\cos x = -\frac{5}{7}$, leading to $x = 135.6^\circ$ and 224.4°		3
3	Mark 1 rearrange equation $\tan x = \frac{9}{2}$ Mark 2 calculate value for x $x = 77.5^\circ$ Mark 3 calculate a second value for x $x = 257.5^\circ$ 2 marks will be given for $\tan x = \frac{3}{2}$, leading to $x = 56.3^\circ$ and 236.3°		3
4	Mark 1 rearrange equation $\sin x = -\frac{2}{7}$ Mark 2 calculate value for x $x = 196.6^\circ$ Mark 3 calculate a second value for x $x = 343.4^\circ$ 1 mark will be given for $\sin x = \frac{2}{7}$, leading to $x = 16.6^\circ$ and 163.4°		3
5	Mark 1 rearrange equation $\cos x = -\frac{4}{11}$ Mark 2 calculate value for x $x = 111.3^\circ$ Mark 3 calculate a second value for x $x = 248.7^\circ$ 1 mark will be given for $\cos x = \frac{10}{11}$, leading to $x = 24.6^\circ$ and 335.4°		3