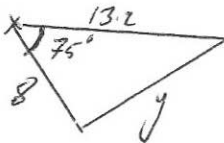
 Corbettmaths	
4th February	
Write $(\sqrt{2} + \sqrt{6})^2$ in the form $a + b\sqrt{3}$	$(\sqrt{2} + \sqrt{6})(\sqrt{2} + \sqrt{6})$ $2 + \sqrt{12} + \sqrt{12} + 6$ $8 + 2\sqrt{12}$ $8 + 4\sqrt{3}$
Make c the subject of $x = \frac{y^2 + c}{y - c}$	$x(y - c) = y^2 + c$ $xy - cx = y^2 + c$ $xy - y^2 = c + cx$ $c(1 + x) = xy - y^2$ $c = \frac{xy - y^2}{1 + x}$
Find the nth term of the sequence 12 14 18 24 32 ... $\begin{matrix} 2 & 4 & 6 & 8 \\ 2 & 2 & 2 \end{matrix}$ $a = 1 \quad b = -1 \quad c = 12$	$n^2 - n + 12$
Helicopter A and Helicopter B both take off from the same location. Helicopter A flies 8 miles on a bearing of 172° . Helicopter B flies 13.2 miles on a bearing of 097° .	How far is helicopter A from helicopter B? $y^2 = 8^2 + 13.2^2 - 2 \times 8 \times 13.2 \times \cos 75^\circ$ $y = 13.55 \text{ miles}$ 
Find the minimum point of the graph $y = x^2 - 9x - 20$	$y = (x - 4.5)^2 - 20.25 - 20$ $y = (x - 4.5)^2 - 40.25$ $(4.5, -40.25)$