

Number and Algebra Proof Revision

(a)	(b)	(c)	(d)
Show that $8\frac{1}{2} - 3\frac{2}{3} = 4\frac{5}{6}$	Show that $\sqrt{80}$ can be written in the form $k\sqrt{5}$ where k is an integer to be found	Show that $0.\dot{7}\dot{5} = \frac{25}{33}$	Show that $3\frac{5}{8} \div 1\frac{5}{6} = 1\frac{43}{44}$
(e)	(f)	(g)	(h)
Show that $0.3\dot{1} = \frac{14}{45}$	Show that $0.4\dot{2}\dot{7} = \frac{47}{110}$	Show that $(7 - 5\sqrt{3})^2 = a + b\sqrt{3}$ where a and b are integers to be found	Show that the product of an even number and an odd number is always even.
(i)	(j)	(k)	
Show that the sum of three consecutive odd numbers is always a multiple of 3	Show that $\frac{3\sqrt{12}}{2-\sqrt{3}}$ can be written in the form $c + d\sqrt{3}$, where c and d are integers to be found.	Show that $(3n + 4)(n - 3) + n(n - 3)$ is a multiple of 4 for all integer values of n	