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| **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 $3\frac{5}{8}÷1\frac{5}{6}=1\frac{43}{44}$ |
| **(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 $\left(7-5\sqrt{3}\right)^{2}=a+b\sqrt{3}$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 $$\left(3n+4\right)\left(n-3\right)+n\left(n-3\right)$$is a multiple of $4$ for all integer values of $n$ |