**16** (a) Show that the equation $2x^3 + x - 8 = 0$ has a solution between $x = 1$ and $x = 2$

**(1)**

(b) Show that the equation $2x^3 + x - 8 = 0$ can be written in the form $x = \sqrt[3]{\frac{8-x}{2}}$

**(1)**

(c) Starting with $x_0 = 1.5$ use the iteration formula $x_{n+1} = \sqrt[3]{\frac{8-x_n}{2}}$ three times to find an estimate for a solution of $2x^3 + x - 8 = 0$ correct to 3 decimal places.

.....

**(3)**