



Forming and Solving Equations (H)

Post-Intervention Assessment

Name: _____

Class: _____

Date: _____

Question	Objective	RAG
1	Use iterations	
2	Solve quadratic equations	
3	Solve algebraic fractions	
4	Solve non-linear simultaneous equations	

1. (a) Show the equation $x^3 + 4x = 1$ has a solution between $x = 0$ and $x = 1$.
- (b) Show that the equation $x^3 + 4x = 1$ can be rearranged to give $x = \frac{1}{4} - \frac{x^3}{4}$
- (c) Starting with $x_0 = 0$, use the iteration formula $x_{n+1} = \frac{1}{4} - \frac{x_n^3}{4}$ twice, to find an estimate for the solution of $x^3 + 4x = 1$.
2. Solve, by factorising, the equation $8x^2 - 30x - 27 = 0$

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3. Solve the equation $\frac{x}{2x-3} + \frac{4}{x+1} = 1$

$x = \dots\dots\dots$

4. Solve the simultaneous equations $x^2 + y^2 = 9$
 $x + y = 2$
Give your answers correct to 2 decimal places.

$x = \dots\dots\dots y = \dots\dots\dots$

or $x = \dots\dots\dots y = \dots\dots\dots$

[Glue here]