GCSE: The Quadratic Formula

This worksheet is designed to give you extra practice on the quadratic formula and using it to solve equations.

1 Using the quadratic formula, solve the following equations

(a) \( x^2 + 3x + 2 = 0 \)  (b) \( x^2 - 3x + 2 = 0 \)  (c) \( x^2 - 16x - 80 = 0 \)  (d) \( x^2 - 9 = 0 \)

(e) \( 2x^2 + 6x - 7 = 0 \)  (f) \( 5x^2 - x = 8 \)  (g) \( x(x + 2) = 4 \)  (h) \( -x^2 + 5x + 10 = 0 \)

(i) \( 4x^2 + 1 = 2(3 - x) \)  (j) \( 4x^2 - 1 = 0 \)  (k) \( (x + 1)(x - 2) = 4 \)  (l) \( 7x^2 - 8x - 10 = 0 \)

In each case, give your answers to two decimal places where appropriate.

END OF WORKSHEET

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