

EQUATIONS: Quadratic: K-Method

 2026 Watch video and complete examples

Lesson Notes and Examples:

Example 1

$$\left(a + \frac{4}{a}\right)^2 + a + \frac{4}{a} = 20$$

Example 2

$$x^2 + x - 3 + \frac{1}{x^2 + x - 3} = -2$$

Solve:

1) $2x^2 + 3x + \frac{1}{2x^2+3x} = 2$

2) $(x^2 + 2x)^2 - (x^2 + 2x) - 6 = 0$

3) $x^2 + x + 1 + \frac{11}{x^2+x+1} = 12$

 Mark work and do corrections. [1-3]

4) $(3x^2 - x)^2 - 5(3x^2 - x) + 6 = 0$

5) $2\left(x + \frac{1}{x}\right)^2 + 9\left(x + \frac{1}{x}\right) - 5 = 0$

6) $4y(y - 1) - \frac{2}{y^2-y} = 7$

 Mark work and do corrections. [4-6]

7) $y^2 + 3 + \frac{12}{y^2+3} = 7$

8) $\frac{12}{3x^2+7x} = 3x^2 - 4 + 7x$

9) $2x^2 - 4x + \frac{16}{x(2-x)} = 14$

 Mark work and do corrections. [7-9]

10) $(x^2 + 2x)^2 - 7(x^2 + 2x) - 8 = 0$

11) $x^2 + 2x - 11 + \frac{24}{x^2+2x} = 0$

12) $4(3x^2 + x + 1) - \frac{10(3x^2+x-1)}{3x^2+x} = 7$

 Mark work and do corrections. [10-12]