

EQUATIONS: Introduction and Summary

 **2020** Watch video and complete examples

Lesson Notes and Examples:

Linear

Grade 10

$$9(x + 6) - 5(x + 8) = 30 - (x - 4)6$$

$$\frac{7}{5x} - \frac{4}{x} = \frac{4(x + 2)}{5x} + 2$$

Exponential

'base' = 'base'

$$\frac{81^{3y+2}}{243^{-y}} = 3^4$$

Quadratic Form

$$3^{2x+1} - 28 \cdot 3^x = -9$$

Quadratic

Factorise and solve

$$8x^2 + 2x - 3 = 0$$

$$\frac{2}{x+1} - \frac{6}{2-x} = \frac{2x+4}{x+1}$$

By completing the square

$$8x^2 + 2x - 3 = 0$$

Using the Formula

$$8x^2 + 2x - 3 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Squaring both sides

$$2x - \sqrt{32 - 8x} = 0$$

Square rooting both sides

$$(2x - 3)^2 = 4$$

K-method

$$\frac{p^2 + 5p}{2} + 5 = -\frac{12}{p^2 + 5p}$$

Literal

Grade 10

Determine the value of x :

$$R = \frac{2\sqrt{x}}{3S}$$

Simultaneous

Grade 10 – Linear only

$$6q + 7p = 3$$

$$2q + p = 5$$

Grade 11 – Linear and Quadratic

$$2x - y = 8$$

$$y = x^2 + 4x - 23$$

$$5^{x-2y-1} = 1$$

$$x^2 + 2xy - 2x - 4y = 0$$