

Level 3

Factor the following polynomials

(a) $10x^2 + 19x + 6$

(b) $x^4 - 1$

(c) $3x^3 - 6x^2 - x + 2$

Solve the following system of equations

$$3x - y = 3$$

$$4x + 5y = -15$$

Simplify the following rational expression:

$$\frac{\frac{6}{6+1} - 1}{\frac{6+3}{6} - 2}$$

Solve the following equation:

$$\frac{2}{x-3} - \frac{4}{x+3} = \frac{8}{x^2-9}$$

Solve the following equation:

$$\sqrt{x-3} + 5 = x$$