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

\[\begin{align*}
3x - y &= 3 \\
4x + 5y &= -15
\end{align*}\]
Simplify the following rational expression:

\[ \frac{6}{6 + 1} - \frac{1}{6 + 3} - \frac{2}{6} \]

Solve the following equation:

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

Solve the following equation:

\[ \sqrt{x - 3} + 5 = x \]