

Détermination du domaine de validité.

$$x^2 + 1 = 0$$

$$x + 3 = 0$$

$$x^2 = -1$$

$$x = -3$$

$$30 = \sqrt{-1}$$

$(\sqrt{-1}, -3)$

$$(x^2 + x + 1)(x + 3) = (x^2 + 1)(x + 5)$$

$$(x^3 + 3x^2 + x^2 + 3x + x + 3) = (x^3 + 5x^2 + x + 3)$$

$$x^3 + 4x^2 + 4x + 3 = x^3 + 5x^2 + x + 8$$

$$-x^3 \quad | \quad 6x^3 - x^3 + 4x^2 + 4x + 3 = 5x^2 + x + 3$$

$$-5x^2 \text{ (6) } 4x^2 - 5x^2 + 4x + 3 = x + 5$$

$$-x^6 - 10x^2 + 4x - x + 3 = 5$$

$$-5 \quad | \quad -1x^2 + 3x + 3 - 5 = 0$$

$$-1x^2 + 3x - 2 = 0$$