

次の式を因数分解しよう！

$$(1) x^3 + 7x^2 + 14x + 8$$

$$(2) x^3 - 2x^2 - 29x - 42$$

$$(3) x^3 - x^2 - 34x - 56$$

$$(4) x^3 + 7x^2 + 4x - 12$$

$$(5) x^3 + 7x^2 + 7x - 15$$

$$(6) x^3 - 8x^2 - 3x + 90$$

$$(7) x^3 - 11x^2 + 6x + 144$$

$$(8) x^3 + x^2 - 65x + 63$$

$$(9) x^3 + 2x^2 - 29x + 42$$

$$(10) x^3 - 20x^2 + 123x - 216$$

【解答】

(1) $(x + 1)(x + 2)(x + 4)$

(2) $(x + 2)(x + 3)(x - 7)$

(3) $(x + 2)(x + 4)(x - 7)$

(4) $(x - 1)(x + 2)(x + 6)$

(5) $(x - 1)(x + 3)(x + 5)$

(6) $(x + 3)(x - 5)(x - 6)$

(7) $(x + 3)(x - 6)(x - 8)$

(8) $(x - 1)(x - 7)(x + 9)$

(9) $(x - 2)(x - 3)(x + 7)$

(10) $(x - 3)(x - 8)(x - 9)$