E-02 - CORRIGE

① $= 125x^{6}y^{5m-3} - 225x^{m+4}y^{7m} + 135x^{2m+2}y^{5m+3} - 27x^{3m}y^{3m+6}$

② $32x^5 - 80x^4y + 80x^3y^2 - 40x^2y^3 + 10xy^4 - y^5$ | $4x^2 - 4xy + y^2$

$-32x^5 + 32x^4y - 8x^3y^2$ | $8x^3 - 12x^2y + 6xy^2 - y^3$

$-48x^4y + 72x^3y^2 - 40x^2y^3 + 10xy^4 - y^5$

$+48x^4y - 48x^3y^2 + 12x^2y^3$

$24x^3y^2 - 28x^2y^3 + 10xy^4 - y^5$

$-24x^3y^2 + 24x^2y^3 - 6xy^4$

$-4x^2y^3 + 4xy^4 - y^5$

$+4x^2y^3 - 4xy^4 + y^5$

0

③ $= 20x^2 - 15xy - 4xy + 3y^2 - [6x^2 - 15xy + 8xy - 20y^2 - (3x^2 + xy - 6xy$

$= 20x^2 - 19xy + 3y^2 - [6x^2 - 7xy - 20y^2 - 3x^2 + 5xy + 2y^2] - 2y^2)]$

$= 20x^2 - 19xy + 3y^2 - 6x^2 + 7xy + 20y^2 + 3x^2 - 5xy - 2y^2$

$= 17x^2 - 17xy + 21y^2$

④ $= 216x^9y^{12} + 324x^8y^{13} + 162x^7y^{14} + 27x^6y^{15}$

⑤ $x^8 - 2x^5 + x^4 + 2x^3 + 1$ | $x^6 + x^5 - x^3 + x - 1$

$-x^8 - x^7 + x^5 - x^3 + x^2$ | $x^2 - x + 1$

$-x^7 - x^5 + x^4 + x^3 + x^2 + 1$

$+x^7 + x^6 - x^4 + x^2 - x$

$x^6 - x^5 + x^3 + 2x^2 - x + 1$

$-x^6 - x^5 + x^3 - x + 1$

$-2x^5 + 2x^3 + 2x^2 - 2x + 2$

⑥ $3x - 3\{3x - 3[3x - 9x + 9 - 3x] - 3\} - 3x = -495$

$3x - 3\{3x - 9x + 27x - 27 + 9x - 3\} - 3x = -495$

$3x - 9x + 27x - 81x + 81 - 27x + 9 - 3x = -495$

$-90x = -585$

$x = \{13/2\}$

⑦ $20x^2 + 15x - 8x - 6 - (8x^2 - 6x + 28x - 21) = 16x^2 + 47 - (4x^2 + 4x - 3x - 3)$

$20x^2 + 7x - 6 - 8x^2 - 22x + 21 = 16x^2 + 47 - 4x^2 - x + 3$

$-14x = 35$

$x = \{-5/2\}$