Lezione 48

$3x^4+6x^3+9x^2+18x =$

$=3x(x^3+2x^2+3x+6)$

$D_6 = \{\pm 1; \pm 2; \pm 3; \pm 6\}$

$P(x) = x^3+2x^2+3x+6$

$P(-1) = -1+2-3+6 = -4 \neq 0$

$P(-2) = -8+8-6+6$

$c=-2$

$x-c = x-(-2) = x+2$

	1	2	3	6
-2		-2	0	-6
	1	0	3	0

$x^3+2x^2+3x+6 = (x+2)(x^2+3)$

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

$p(x) = x^3 + 3x^2 - 6x - 8$ $\quad D_8 = \{\pm 1; \pm 2; \pm 4; \pm 8\}$

$p(1) = 1 + 3 - 6 - 8 = 4 - 6 - 8$

$= -2 - 8 = -10 \neq 0$

$p(-1) = -1 + 3 + 6 - 8 = 8 - 8 = 0$!!!

$x - c = x - (-1) = x + 1$

$c = -1$

	1	3	−6	−8
−1		−1	−2	8
	1	2	−8	0

$$(x^2 + 2x - 8)(x + 1) = x^3 + 3x^2 - 6x - 8$$

$x^2 + 2x - 8$

$p = -8$

$s = 2$

$1 \cdot 8$

$2 \cdot 4$

$-2 \quad 4$

$= (x - 2)(x + 4)$

$x^2 + px + c$

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

$$\frac{7}{3} + \frac{2-x}{6} = \frac{1+2x}{6} - \frac{1-x}{2}$$

$$\frac{14+2-x}{6} = \frac{1+2x-3(1-x)}{6} \times 6$$

$$14+2-x = 1+2x-3+3x$$

$$14+2-1+3 = 6x$$

$$\frac{6x}{6} = \frac{18}{6} \Rightarrow \boxed{x = \frac{18}{6} \div 3}$$

$$\frac{x+1}{4} + \frac{5-4x}{6} = \frac{1}{4} - \frac{1}{2}x + \frac{3}{1}$$

$$\frac{3(x+1) + 2(5-4x)}{12} = \frac{3 - 6x + 36}{12}$$

$$3x + 3 + 10 - 8x = 3 - 6x + 36$$

$$-5x + 6x = 36 - 10 \implies \boxed{x = 26}$$

$$\frac{x+2}{3} - \frac{(x-1)}{2} + \frac{2}{1} = \frac{19-x}{6}$$

$$\frac{2(x+2) - 3(x-1) + 12}{6} = \frac{19-x}{6} \cdot 6$$

$$2x+4-3x+3+12 = 19-x$$

$$-x+19 = 19-x$$

$$0 = 0$$

indeterminata

$6x = 3$

$0 = 3$?!?

IMPOSS.

IDENTITÀ VERA SEMPRE