539 $2x^2 - 2 - (x-1)^2 =$ $[(x-1)(x+3)]$

$= 2(x^2-1) - (x-1)^2 =$

$= 2(x-1)(x+1) - (x-1)^2 = (x-1)\left[2(x+1) - (x-1)\right] =$

$= (x-1)(2x+2-x+1) = (x-1)(x+3)$

alternativa

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

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

541 $a^6 - a^5 - a^3 + a^2 =$ $[a^2(a-1)^2(a^2+a+1)]$

$= a^2(a^4 - a^3 - a + 1) = a^2\left(a^3(a-1) - (a-1)\right) =$

$= a^2(a-1)(a^3-1) = a^2(a-1)(a-1)(a^2+a+1) =$

$= a^2(a-1)^2(a^2+a+1)$

543 $(a^2+1)^2-4a^2 =$

$= \left[(a^2+1)-2a\right]\left[(a^2+1)+2a\right] =$

$= (a^2+1-2a)(a^2+1+2a) = (a-1)^2(a+1)^2$

552 $(x^2+y^4)(x-y)-2x^2y^2+2xy^3 =$

$= (x^2+y^4)(x-y)-2xy^2(x-y) =$

$= (x-y)\left[(x^2+y^4)-2xy^2\right] =$

$= (x-y)(x^2+y^4-2xy^2) = (x-y)(x-y^2)^2$

645 $2x^2-3x-2-ax+2a =$

$= 2x^2-4x+x-2 \quad -a(x-2) =$

$S=-3$
$P=-4 \Rightarrow -4, +1$

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

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

641 $ax^2 - a + x^2 + 2x - 3 =$

$= a(x^2-1) + (x+3)(x-1) =$

$= a(x-1)(x+1) + (x+3)(x-1) =$

$= (x-1)[a(x+1) + (x+3)] =$

$= (x-1)(ax + a + x + 3)$

644 $x^5 + x^4 - x^3 + x^2 - 2x =$

$= x(x^4 + x^3 - x^2 + x - 2) = \boxed{x(x+2)(x^2+1)(x-1)}$

A PARTE, SCOMPONGO CON RUFFINI $x^4 + x^3 - x^2 + x - 2$ DIV. DI -2

$\pm 1 \quad \pm 2$

$1 \mapsto 1 + 1 - 1 + 1 - 2 = 0$ OK!

	1	1	−1	1	−2
1		1	2	1	2
	1	2	1	2	//

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

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

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