CORREZIONE VERIFICA 1 (fattorizzazione)

1) $a^2 - a - 30 = (a-6)(a+5)$

2) $4a^2 - 5a + 1 = 4a^2 - 4a - a + 1 = 4a(a-1) - (a-1) = (a-1)(4a-1)$

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

4) $x^4 - 13x^2 + 36 = (x^2-4)(x^2-9) = (x+2)(x-2)(x+3)(x-3)$

5) $a^4 + b^4 - 2a^2b^2 = (a^2-b^2)^2 = (a+b)^2(a-b)^2$

6) $t^4 - 4t^2 + 4t - 1 = t^4 - (2t^2-1)^2 = (t^2+2t-1)(t^2-2t+1) = (t^2+2t-1)(t-1)^2$

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

8) $$a^3 + a^2c - 2ac^2 - a^2b - abc + 2bc^2 = a(a^2+ac-2c^2) - b(a^2+ac-2c^2) =$$
$$= (a^2+ac-2c^2)(a-b) = (a+2c)(a-c)(a-b)$$

9) $$8x^3 + 12x^2 - 18x - 27 = 4x^2(2x+3) - 9(2x+3) = (2x+3)(4x^2-9) =$$
$$= (2x+3)(2x+3)(2x-3) = (2x+3)^2(2x-3)$$

10) Col “metodo del completamento del quadrato”
$$x^2 - 2x - 624 = x^2 - 2x + 1 - 625 = (x-1)^2 - 625 =$$
$$= (x-1+25)(x-1-25) = (x+24)(x-26)$$