22/1/2020

327 $6u^2 + 5u - 6 =$

$S = 5$
$P = -36$ $\Rightarrow$ $9, -4$

$= 6u^2 + 9u - 4u - 6 =$
$= 3u(2u+3) - 2(2u+3) =$
$= (2u+3)(3u-2)$

$4y^2 - 21y - 18 =$

$S = -21$
$P = -72$ $\Rightarrow$ $-24, 3$

$= 4y^2 - 24y + 3y - 18 =$
$= 4y(y-6) + 3(y-6) =$
$= (y-6)(4y+3)$

307 $t^2 + t - 20 =$

$S = 1$
$P = -20$ $\Rightarrow$ $5, -4$

$= (t+5)(t-4)$

$x^2 - 3x - 28 =$

$S = -3$
$P = -28$ $\Rightarrow$ $-7, 4$

$= (x-7)(x+4)$

334 $2x^2 - 5ax - 3a^2 =$

$S = -5a$
$P = 2(-3a^2) = -6a^2$

$-6a \quad \underbrace{1a}_{a}$

$= 2x^2 - 6ax + ax - 3a^2 =$
$= 2x(x-3a) + a(x-3a) =$
$= (x-3a)(2x+a)$

$9x^2 - 6ax - 8a^2 =$

$S = -6a$
$P = -72a^2$ $\Rightarrow$ $-12a \quad 6a$

$= 9x^2 - 12ax + 6ax - 8a^2 =$
$= 3x(3x-4a) + 2a(3x-4a) =$
$= (3x-4a)(3x+2a)$

$x^2 + mx - 2m^2 =$

$S = m$
$P = -2m^2 \Rightarrow 2m \quad -1m$

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

$x^2 + 4ax - 12a^2 = (x-2a)(x+6a)$

$S = 4a$
$P = -12a^2 \Rightarrow -2a \quad 6a$

342 $x^4 - x^2 - 2 =$

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

$S = -1$
$P = -2 \Rightarrow -2 \quad 1$

$x^6 + 4x^3 - 12 =$

$S = 4$
$P = -12 \Rightarrow 6 \quad -2$

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

347 $2a^2b^2 + 11ab - 6 =$

$S = 11$
$P = -12 \Rightarrow 12 \quad -1$

$= 2a^2b^2 + 12ab - ab - 6 =$
$= 2ab(ab+6) - (ab+6) =$
$= (ab+6)(2ab-1)$

$m^6n^6 + m^3n^3 - 20 =$

$S = 1$
$P = -20 \Rightarrow 5 \quad -4$

$= (m^3m^3+5)(m^3m^3-4)$

ESERCIZI DI RIEPILOGO

382 $a^2x^3 - a^6x = a^2x(x^2 - a^4) =$

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

383 $2a^3 - 12a^2 + 18a = 2a(a^2 - 6a + 9) =$

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

384 $x^3y + x^2y^2 - x - y =$

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

385 $x^8 - 16x^4 =$

$= x^4(x^4 - 16) = x^4(x^2-4)(x^2+4) =$

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

386 $2x^2 - 2x - 12 = 2(x^2 - x - 6) = 2(x-3)(x+2)$

415 $a^2 - b^2 + ax + bx =$

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

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

417 $4x^2 - y^2 - 2x + y =$

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

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

422 $(2a-1)^3 - 4a^2 + 1 =$

$= (2a-1)^3 - (4a^2-1) =$

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

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

$= (2a-1)\left[4a^2 - 4a + \cancel{1} - 2a - \cancel{1}\right] =$

$= (2a-1)(4a^2 - 6a) =$

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