

Lezione 46

$$\begin{aligned}
 & r^2 - 2rt - 15t^2 \\
 & = \textcircled{1} r^2 - \textcircled{2t} r - \textcircled{15t^2} = \\
 & = r^2 + 3tr - 5tr - 15t^2 = \\
 & = r(r + 3t) - 5t(r + 3t) = \\
 & = (r + 3t)(r - 5t)
 \end{aligned}$$

$$\begin{aligned}
 & 5x^2 - 2xy - 16y^2 \\
 & = 5x^2 - 2yx - 16y^2 = \\
 & = 5x^2 + 8yx - 10yx - 16y^2 = \\
 & = x(5x + 8y) - 2y(5x + 8y) = \\
 & = (5x + 8y)(x - 2y)
 \end{aligned}$$

$$\begin{aligned}
 p &= -15t^2 \\
 s &= -2t
 \end{aligned}$$

1)	t	15t
2)	3t	5t

$$\begin{aligned}
 & 3t + (-5t) \\
 & = -2t
 \end{aligned}$$

$$\begin{aligned}
 p &= -80y^2 \\
 s &= -2y
 \end{aligned}$$

1)	y	80y
2)	2y	40y
3)	4y	20y
4)	5y	16y
5)	8y	10y

$$\begin{aligned}
 & x^2 + 22xy + 40y^2 \\
 & x^2 + \underline{22y}x + \underline{40y^2} = \\
 & = \underline{(x + 2y)(x + 20y)}
 \end{aligned}$$

$$(x + \underline{2y})(x + \underline{20y})$$

$$\begin{aligned}
 p &= 40y^2 \\
 s &= 22y
 \end{aligned}$$

$$(x + ay)(x + by)$$

$$\begin{array}{r}
 1) \quad 40y \quad 40y \\
 2) \quad \underline{2y} \quad \underline{20y} \\
 3) \quad 4y \quad 10y
 \end{array}$$

$$\begin{aligned}
 & 4a^2 - 11ab + 7b^2 \\
 & 4a^2 - \underline{11ba} + \underline{7b^2} = \\
 & = \underline{4a^2 - 4ba - 7ba + 7b^2} = \\
 & = 4a(a - b) - 7b(a - b) = \\
 & = \underline{(a - b)(4a - 7b)}
 \end{aligned}$$

$$\begin{aligned}
 p &= 28b^2 \\
 s &= -11b
 \end{aligned}$$

$$\begin{array}{r}
 1) \quad b \quad 28b \\
 2) \quad \underline{2b} \quad \underline{14b} \\
 3) \quad 4b \quad 7b
 \end{array}$$

$$-4b \quad -7b$$

$$\begin{aligned}
 6a^2 - 3a - 18 &= \\
 &= 3(2a^2 - a - 6) \\
 &= 3 \left[ \underbrace{2a^2 + 3a - 4a - 6} \right] = \\
 &= 3 \left[ \underbrace{a(3+2a) - 2(2a+3)} \right] \\
 &= 3 \left[ \underbrace{(3+2a)(a-2)} \right] \\
 &= \boxed{3(3+2a)(a-2)}
 \end{aligned}$$

$$\begin{aligned}
 p &= -12 \\
 s &= -1 \\
 1) & 1 \cdot 12 \\
 2) & 2 \cdot 6 \quad 3 \quad -4 \\
 3) & \underline{3 \cdot 4} \quad ) \quad )
 \end{aligned}$$

$$\begin{aligned}
 3a^2 - 7a - 6 &= \\
 &= \underbrace{3a^2 + 2a - 9a - 6} = \\
 &= \underbrace{a(3a+2) - 3(3a+2)} = \\
 &= \underline{(3a+2)(a-3)}
 \end{aligned}$$

$$\begin{aligned}
 p &= -18 \\
 s &= -7 \\
 1) & 1 \cdot 18 \\
 2) & \boxed{2 \cdot 9} \\
 3) & 3 \cdot 6 \\
 & \quad \underline{2} \quad \underline{-9}
 \end{aligned}$$