

FACTOR COMÚN

$$x^5 y^2 - x^2 = x^2 (x^3 y^2 - 1) //$$

$$6a^2 b^3 c + 4a b^2 c^3 - 2a^2 c^2 + a^2 b^2 c^2 //$$

$$1ac (6ab^3 + 4b^2 c^2 - 2ac + ab^2 c) //$$

DIFERENCIA DE CUADRADOS

$$+x^2 - y^2 \leftarrow$$

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

$$-25m^2 + 1 \rightarrow$$

$$1 - 25m^2 \rightarrow (5m-1)(5m+1) //$$

$$1 - 4 - 9 - 16 - 25 - 36 - 49 - 64 - 81 - 100 - 121 \dots$$

$$\sqrt{x^{10}} = x^5 \quad \downarrow \quad x^5 \cdot x^5 = x^{10}$$

$$4a^2 - 9b^2 = (2a-3b)(2a+3b) //$$

$$4a^2 + 2a \cdot 3b - 2a \cdot 3b - 9b^2$$

$$\rightarrow 4a^2 - 9b^2$$

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

$$16m^4 - 1 = (4m^2-1)(4m^2+1)$$

SUMA O DIFERENCIA DE CUBOS

$$x^3 - y^3 = (x-y)(x^2 + xy + y^2) \leftarrow$$

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

$$1 \quad 8 \quad 27 \quad 64 \quad 125 \quad 216 \quad \dots$$

$$x^{12} \quad \sqrt[3]{x^{12}} = x^4 \rightarrow x^4 \cdot x^4 \cdot x^4 = x^{12}$$

$$27a^3 - 64b^3 = (3a-4b)(9a^2 + 12ab + 16b^2) //$$

$$3^2 a^2 \quad x \quad 4^2 b^2 \quad y$$

$$x^3 - 8 = (x-2)(x^2 + 2x + 4) //$$

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

$$\begin{array}{c} m^3 + 1 = (m+1)(m^2 - m + 1) // \\ \downarrow \quad \downarrow \\ m \quad 1 \end{array}$$

TRINOMIO DE LA FORMA

$$\begin{array}{c} x^2 + bx + c \\ x^2 + 3x - 10 = (x+5)(x-2) \\ \downarrow \quad \downarrow \quad \downarrow \\ \textcircled{x} \quad + \quad * \\ +5 - 2 = +3 \checkmark \\ (+5)(-2) = -10 \checkmark \end{array}$$

$$\begin{array}{r} 10 \\ 5 \overline{) 5} \\ + \end{array}$$

$$\begin{array}{c} x^2 - 7x - 30 = (x+3)(x-10) \\ x^2 - 10x + 3x - 30 \\ x^2 - 7x - 30 // \end{array}$$

$$\begin{array}{c} m^6 - 41m^3 + 400 = (m^3 - 16)(m^3 - 25) \\ \downarrow \quad \downarrow // \\ m^3 \end{array}$$

$$\begin{array}{c} 400 \\ 200 \\ 100 \\ 80 \\ 25 \\ 5 \\ 1 \end{array} \left| \begin{array}{c} 2 \\ 2 \\ 2 \\ 2 \\ 5 \\ 5 \\ 5 \end{array} \right. \begin{array}{l} 16 \\ 25 \end{array}$$

TRINOMIO DE LA FORMA

$$\# \rightarrow ax^2 + bx + c$$

$$\begin{array}{c} 3x^2 - 5x - 2 \\ 3(3x^2 - 5x - 2) = (3x)^2 - 5(3x) - 6 \star \\ \underline{3} \quad \underline{3} \quad \underline{3} \\ 3 \cdot 3x^2 = 3^2x^2 = (3x)^2 \\ -5x \cdot 3 = -5(3 \cdot x) \\ 3x^2 + x - 6x - 2 \\ 3x^2 - 5x - 2 // \\ \underline{3x - 6} \quad \underline{3x + 1} \\ (x-2)(3x+1) // \end{array}$$

$$5(5a^2 + 13a - 6) = (5a)^2 + 13(5a) - 30^x$$

$$\begin{array}{l} 5a^2 - 2a + 15a - 6 \\ 5a^2 + 13a - 6 \end{array} = \frac{(5a + 15)(5a - 2)}{5} = (a + 3)(5a - 2)$$

TRINOMIO CUADRADO PERFECTO

→ ORDEN

$$x^2 + x + 1$$

$$a^2 - 10a + 25 = (a - 5)^2$$

$$a^2 + 10a - 25 = (a - 5)^2$$

$$(a - 5)(a - 5)$$

$$(a + 5)^2$$

$$(a + 5)(a - 5)$$

$$a^2 - 5a + 5a - 25$$

$$a^2 - 25$$

$$a^2 - 5a - 5a + 25$$

$$a^2 - 10a + 25$$

→	(-)	+	TCP
→	(+)	+	
	(-)	-	

TAREA

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$$\textcircled{1} 25x^4 - 49y^2$$

$$\textcircled{2} 12 - 8n + n^2$$

$$\textcircled{3} 27m^3n^3 - 1$$

$$\textcircled{4} 12x^2y^3 - 16x^3y^2$$

$$\textcircled{5} 16m + 15m^2 - 15$$

$$\textcircled{6} 1 - m^2n^4$$

$$\textcircled{7} a^2 - 24am^2x^2 + 144m^4x^4$$

$$\textcircled{8} y^2 - 9y + 20$$

$$\textcircled{9} 4x - 6y$$

$$\textcircled{10} 12x^2 - x - 6$$

$$\textcircled{11} x^6 - 8y^6$$

$$\textcircled{12} a^6 - 2ab^3 + b^6$$

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