

Ejercicios Productos notables

Resumen

Suma por diferencia	$(a+b)(a-b) = a^2 - b^2$
Cuadrado de un binomio	$(a+b)^2 = a^2 + 2ab + b^2$ $(a-b)^2 = a^2 - 2ab + b^2$
Producto de dos binomios	$(a+b)(c+d) = ac + ad + bc + bd$
Cubo de un binomio	$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$ $(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$

I. Resolver cada suma por diferencia

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|------------------------------|-----------------------|-----------------------|
| 1. $(x-2)(x+2)$ | 2. $(a+3)(a-3)$ | 3. $(2x-5)(2x+5)$ |
| 4. $(3x+2)(3x-2)$ | 5. $(3x+y)(3x-y)$ | 6. $(5x-2)(5x+2)$ |
| 7. $(7a-b)(7a+b)$ | 8. $(5x+10y)(5x-10y)$ | 9. $(5x^2-3)(5x^2+3)$ |
| 10. $(7a^2+2b^3)(7a^2-2b^3)$ | | |

II. Resolver cada cuadrado de binomio

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|-----------------|-----------------|--------------------|
| 1. $(x+4)^2$ | 2. $(3x+2)^2$ | 3. $(a+1)^2$ |
| 4. $(p+5q)^2$ | 5. $(a+2b)^2$ | 6. $(x-5)^2$ |
| 7. $(5x+3y)^2$ | 8. $(a-3b)^2$ | 9. $(6-x)^2$ |
| 10. $(6x-5y)^2$ | 11. $(x^2-5)^2$ | 12. $(3a^3+x^2)^2$ |

III. Resolver cada producto

- | | | |
|-------------------|-----------------------|-----------------------|
| 1. $(x-2)(x+1)$ | 2. $(a+3)(a-2)$ | 3. $(2a-3)(a+3)$ |
| 4. $(4x+2)(x-5)$ | 5. $(5x-2)(5x-2)$ | 6. $(3x+2)(3x-2)$ |
| 7. $(4a-b)(3a+b)$ | 8. $(2x+5y)(5x+y)$ | 9. $(2x^2-1)(3x^2-3)$ |
| 10. $(x-3)^3$ | 11. $(7a^2-b)(3a-2b)$ | 12. $(a+2)^3$ |

IV. En cada producto notable, encontrar el error o los errores

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|--|--------------------------------------|
| 1. $(x-7)(x+7) = x^2 + 49$ | 2. $(x-8)^2 = x^2 + 16x - 64$ |
| 3. $(x+6)^2 = x^2 + 6x + 36$ | 4. $(4x+2)(4x-2) = 4x^2 - 4$ |
| 5. $(a-9)^2 = a^2 - 18a + 18$ | 6. $(5x-2)(5x-2) = 25x^2 - 4$ |
| 7. $(2x+12)^2 = 4x^2 + 24x + 144$ | 8. $(2x+3y)(3x+2y) = 6x^2 + 6y^2$ |
| 9. $(x+5)(x-7) = x^2 - 12x - 35$ | 10. $(5a+3b)(3a-5b) = 15a^2 - 15b^2$ |
| 11. $(x+3)^3 = x^3 + 9x - 27 + 27$ | 12. $(x-1)^3 = x^3 - x^2 + x + 1$ |
| 13. $\left(\frac{1}{2}x+4\right)^2 = \frac{1}{4}x^2 + 8x + 16$ | 14. $(x+3)^3 = x^3 + 9x - 27x + 27$ |

