

## Matemática 10mo EGB Tema: Productos notables

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### Resumen de fórmulas a usarse

|                                                                                                 |
|-------------------------------------------------------------------------------------------------|
| <i>Suma por diferencia de un binomio</i><br>$(a + b)(a - b) = a^2 - b^2$                        |
| <i>Cuadrado de un binomio</i><br>$(a + b)^2 = a^2 + 2ab + b^2$<br>$(a - b)^2 = a^2 - 2ab + b^2$ |
| <i>Producto de dos binomios con un término común</i><br>$(x + a)(x + b) = x^2 + (a + b)x + ab$  |

#### I. Resolver cada suma por diferencia

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

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

$$(2x - 5)(2x + 5) = x^2 -$$

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

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

$$(5x - 2)(5x + 2) = x^2 -$$

$$(7a - b)(7a + b) = a^2 - b^2$$

$$(5x^2 - 3)(5x^2 + 3) = x^4 -$$

$$(7a^2 + 2b^3)(7a^2 - 2b^3) = a^4 - b^6$$

$$(5x + 10y)(5x - 10y) = x^2 - y^2$$

#### II. Resolver cada cuadrado de binomio

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

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

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

$$(x - 5)^2 = x^2 - x +$$

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

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

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



$$(p + 5q)^2 = p^2 + pq + q^2$$

$$(a + 2b)^2 = a^2 + ab + b^2$$

$$(5x + 3y)^2 = x^2 + xy + y^2$$

$$(a - 3b)^2 = a^2 - ab + b^2$$

$$(6x - 5y)^2 = x^2 - xy + y^2$$

III. Resolver cada producto

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

$$(x + 5)(x + 4) = x^2 + x +$$

$$(a - 7)(a - 9) = a^2 - a +$$

$$(x - 4)(x - 6) = x^2 - x +$$

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

$$(x - 13)(x + 2) = x^2 - x -$$

$$(a - 7)(a + 12) = a^2 + a -$$

$$(x^2 + 5)(x^2 + 3) = x^4 + x^2 +$$

$$(2b + 5)(2b + 9) = b^2 + b +$$

$$(6x - 3)(6x + 5) = x^2 + x -$$

$$(2a + 3b)(2a + 5b) = a^2 + ab + b^2$$

$$(3a^2 - 2b)(3a^2 - 5b) = a^4 - a^2b + b^2$$