

Factorice los Polinomios

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

2. $4x^2 - 81y^4 = (2x + 9y^2)(2x - 9y^2)$

3. $27a^3 - 8b^6$

$(3a)^2 \times (2b) = 9a^2$

$(3a)^1 \times (2b)^1 = 6ab$

$(3a)^1 \times (2b)^2 = 4b^2$

$\therefore 27a^3 - 8b^6 = (3a + 2b)(9a^2 - 6ab + 4b^2)$

4. $64m^3 + 125n^6$

$(4m^2)^3 + 125n^6$

$(4m^2)^3 + (5n^2)^3$

$(4m^2 + 5n^2)((4m^2)^2 + 4m^2(5n^2) + (5n^2)^2)$

$\therefore (4m^2 + 5n^2)(16m^4 + 20m^2n^2 + 25n^4)$

5. $m^6 - 216$

$(m^2 - 6)(m^4 + 6m^2 + 36)$

6. $125x^3 + 1000y^6$

$(25x^2 + 500y^3)$

$(5x + 250y^2)$

7. $100m^2 - 81n^2$

$(10m - 9n)$

8. $49a^4 - 36b^2$

$(7a^2 - 6b)$