



Algebra, Factorización, Binomio

Nombre _____

Día _____

Factoriza los siguientes binomios por su diferencia de cubos

(1) $1000d^9 - y^{12}$

(2) $729q^3 - 8t^9$

(3) $27z^{15} - 125w^{15}$

(4) $512q^3 - 729x^3$

(5) $125v^3 - 27w^{15}$

(6) $8y^6 - 729z^3$

(7) $125n^6 - 729u^{15}$

(8) $125p^{12} - 27c^{15}$

(9) $64t^9 - k^9$

(10) $64n^9 - 27p^{12}$

(11) $27u^9 - 1000d^9$

(12) $64c^{15} - 125x^3$



Soluciones

Factoriza los siguientes binomios por su diferencia de cubos

(1) $1000d^9 - y^{12}$

$(10d^3 - y^4)(100d^6 + 10d^3y^4 + y^8)$

(3) $27z^{15} - 125w^{15}$

$(3z^5 - 5w^5)(9z^{10} + 15z^5w^5 + 25w^{10})$

(5) $125v^3 - 27w^{15}$

$(5v - 3w^5)(25v^2 + 15vw^5 + 9w^{10})$

(7) $125n^6 - 729u^{15}$

$(5n^2 - 9u^5)(25n^4 + 45n^2u^5 + 81u^{10})$

(9) $64t^9 - k^9$

$(4t^3 - k^3)(16t^6 + 4t^3k^3 + k^6)$

(11) $27u^9 - 1000d^9$

$(3u^3 - 10d^3)(9u^6 + 30u^3d^3 + 100d^6)$

(2) $729q^3 - 8t^9$

$(9q - 2t^3)(81q^2 + 18qt^3 + 4t^6)$

(4) $512q^3 - 729x^3$

$(8q - 9x)(64q^2 + 72qx + 81x^2)$

(6) $8y^6 - 729z^3$

$(2y^2 - 9z)(4y^4 + 18y^2z + 81z^2)$

(8) $125p^{12} - 27c^{15}$

$(5p^4 - 3c^5)(25p^8 + 15p^4c^5 + 9c^{10})$

(10) $64n^9 - 27p^{12}$

$(4n^3 - 3p^4)(16n^6 + 12n^3p^4 + 9p^8)$

(12) $64c^{15} - 125x^3$

$(4c^5 - 5x)(16c^{10} + 20c^5x + 25x^2)$