mobius

Factor Polynomials (Order 3) - Sum of Cubes (With Hint), Coefficient 1

1 Use the sum of cubes formula to factor this polynomial

$q^3 + 216$

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

A $(q + 6)(q^2 - 6q + 36)$

B $(q + 3)(q^2 + 6q - 36)$

2 Use the sum of cubes formula to factor this polynomial

$n^3 - 64$

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

A $(n - 4)(n^2 - 4n + 16)$

B $(n - 4)(n^2 + 4n - 16)$

3 Use the sum of cubes formula to factor this polynomial

$t^3 + 216$

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

A $(t + 6)(t^2 - 6t + 36)$

B $(t + 6)(6t^2 + 6t - 36)$

4 Use the sum of cubes formula to factor this polynomial

$n^3 + 216$

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

A $(n + 6)(n^2 + 36n - 6)$

B $(n + 6)(n^2 - 6n + 36)$

5 Use the sum of cubes formula to factor this polynomial

$r^3 + 64$

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

A $(r - 4)(4r^2 - 4r + 16)$

B $(r + 4)(r^2 - 4r + 16)$

6 Use the sum of cubes formula to factor this polynomial

$t^3 + 27$

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

A $(t + 3)(t^2 - 3t + 9)$

B $(t - 3)(t^2 - 3t - 9)$

7 Use the sum of cubes formula to factor this polynomial

$w^3 + 64$

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

A $(w - 4)(w^2 - 4w + 16)$

B $(w + 4)(w^2 - 4w + 16)$

8 Use the sum of cubes formula to factor this polynomial

$y^3 + 216$

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

A $(y + 4)(y^2 + 6y - 36)$

B $(y + 6)(y^2 - 6y + 36)$