Solving Polynomials Using Sum/Diff of Cubes Practice

Date_____

Factor and solve each of the following polynomials. Show all necessary work.

1) $m^3 + 27$

2) $x^3 - 64$

3) $m^3 + 125$

4) $m^3 - 1$

5) $x^3 - 27$

6) $x^3 + 1$

7) $x^3 + 64$

8) $x^3 + 216$

9) $27x^3 + 8$

10) $8x^3 - 27$

Solving Polynomials Using Sum/Diff of Cubes Practice

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Factor and solve each of the following polynomials. Show all necessary work.

1) $m^3 + 27$

$(m + 3)(m^2 - 3m + 9)$

2) $x^3 - 64$

$(x - 4)(x^2 + 4x + 16)$

3) $m^3 + 125$

$(m + 5)(m^2 - 5m + 25)$

4) $m^3 - 1$

$(m - 1)(m^2 + m + 1)$

5) $x^3 - 27$

$(x - 3)(x^2 + 3x + 9)$

6) $x^3 + 1$

$(x + 1)(x^2 - x + 1)$

7) $x^3 + 64$

$(x + 4)(x^2 - 4x + 16)$

8) $x^3 + 216$

$(x + 6)(x^2 - 6x + 36)$

9) $27x^3 + 8$

$(3x + 2)(9x^2 - 6x + 4)$

10) $8x^3 - 27$

$(2x - 3)(4x^2 + 6x + 9)$