Elementary Algebra Skill

Factoring the Sum or Difference of Two Cubes

Factor completely.

1) $x^3 + 1$

2) $y^3 - 8$

3) $z^3 - 64$

4) $m^3 + 27$

5) $1 - t^3$

6) $125 + w^3$

7) $8 - z^3$

8) $1000 - n^3$

9) $8x^3 + 27$

10) $64 - 27b^3$

11) $8m^3 - 27r^3$

12) $125a^3 + 8b^3$

Answers to Factoring the Sum or Difference of Two Cubes

1) $(x+1)(x^2-x+1)$ 2) $(y-2)(y^2+2y+4)$ 3) $(z-4)(z^2+4z+16)$

4) $(m+3)(m^2-3m+9)$ 5) $(1-t)(1+t+t^2)$ 6) $(5+w)(25-5w+w^2)$

7) $(2-z)(2+2z+z^2)$ 8) $(10-n)(100+10n+n^2)$ 9) $(2x+3)(4x^2-6x+9)$

10) $(4-3b)(16+12b+9b^2)$ 11) $(2m-3r)(4m^2+6mr+9r^2)$

12) $(5a+2b)(25a^2-10ab+4b^2)$