Special Products – Difference of Cubes 2

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Factor.

1) $x^3 - 27$

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

    C) Prime   D) $(x - 3)(x^2 + 3x + 9)$

1) _____

2) $y^3 - 27$

    A) $(y - 3)(y^2 + 3y + 9)$ B) $(y - 3)(y^2 - 9)$

    C) $(y + 3)(y^2 - 3y - 9)$ D) $(y - 3)(y^2 + 3y - 9)$

2) _____

3) $512p^3 - 1$

    A) $(8p - 1)(64p^2 + 1)$ B) $(8p - 1)^3$

    C) $(8p - 1)(64p^2 + 8p + 1)$ D) Prime

3) _____

4) $64r^3 - 27$

    A) $(4r - 3)(16r^2 - 12r - 9)$ B) $(4r - 3)(16r^2 - 9)$

    C) $(4r + 3)(16r^2 + 12r + 9)$ D) $(4r - 3)(16r^2 + 12r + 9)$

4) _____

5) $216y^3 - 343$

    A) $(6y - 7)(36y^2 + 49)$ B) $(6y - 7)^3$

    C) Prime   D) $(6y - 7)(36y^2 + 42y + 49)$

5) _____

6) $343y^3 - 1000$

    A) $(7y - 10)(49y^2 + 70y + 100)$ B) $(7y + 10)(49y^2 - 70y + 100)$

    C) $(343y - 10)(y^2 + 70y + 100)$ D) $(7y - 10)(49y^2 + 100)$

6) _____

1) D
2) A
3) C
4) D
5) D
6) A