

Special Products – Sum of Cubes 2

Name _____

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

Factor.

1) $d^3 + 8$ 1) _____
A) $(d + 2)(d^2 + 4)$ B) $(d + 2)(d^2 - 2d - 4)$
C) $(d + 2)(d^2 - 2d + 4)$ D) $(d + 2)(d^2 + 2d + 4)$

2) $t^3 + 343$ 2) _____
A) $(t + 7)(t^2 + 49)$ B) $(t + 7)(t^2 - 7t + 49)$
C) $(t - 343)(t^2 - 1)$ D) $(t - 7)(t^2 + 7t + 49)$

3) $1000p^3 + 1$ 3) _____
A) $(10p + 1)(100p^2 + 1)$ B) $(1000p + 1)(p^2 - 10p + 1)$
C) $(10p + 1)(100p^2 - 10p + 1)$ D) $(10p - 1)(100p^2 + 10p + 1)$

4) $27k^3 + m^3$ 4) _____
A) $(3k + m)(9k^2 - 3km + m^2)$ B) $(3k + m)(9k^2 + m^2)$
C) $(3k + m)(9k^2 - 3km - m^2)$ D) $(3k + m)(9k^2 + 3km + m^2)$

5) $343s^3 + 64t^3$ 5) _____
A) $(7s + 4t)(49s^2 - 28st + 16t^2)$ B) $(12s + 4t)(49s^2 + 16t^2)$
C) $(7s + 4t)(49s^2 + 28st + 16t^2)$ D) $(7s - 4t)(49s^2 - 28st + 16t^2)$

6) $343c^3 + 216$ 6) _____
A) $(7c + 6)(49c^2 + 36)$ B) $(7c - 6)(49c^2 + 42c + 36)$
C) $(7c + 6)(49c^2 - 42c + 36)$ D) $(343c + 6)(c^2 - 42c + 36)$

7) $27x^{12} + 64y^9$ 7) _____
A) $(3x^4 - 4y^3)(3x^4 + 4y^3)$ B) $(3x^4 - 4y^3)(9x^2 + 12x^4y^3 + 16y^6b^2)$
C) $(3x^4 + 4y^3)(9x^8 - 12x^4y^3 + 16y^6)$ D) $(3x^4 + 4y^3)(9x^8 + 12x^4y^3 + 16y^6)$

Answer Key

Testname: 6.18.28 SOLVINGQUADRATICSI

- 1) C
- 2) B
- 3) C
- 4) A
- 5) A
- 6) C
- 7) C