

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Factoring Sum/Difference of Cubes

Factor Completely.

1)  $s^4 - 216s$

2)  $216b^4 + 343b$

3)  $s^3 - 343p^3$

4)  $27p^4 + 512p$

5)  $d^3c + 343c$

6)  $216h^3q + 8q$

7)  $d^3 - 512$

8)  $343r^3 - 8g^3$

9)  $512b^3 - 729$

10)  $729b^3 + 27c^3$

11)  $d^3 + 729$

12)  $n^3s - 729s$



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## Factoring Sum/Difference of Cubes

Factor Completely.

1)  $s^4 - 216s$

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

2)  $216b^4 + 343b$

$$b(6b + 7)(36b^2 - 42b + 49)$$

3)  $s^3 - 343p^3$

$$(s - 7p)(s^2 + 7sp + 49p^2)$$

4)  $27p^4 + 512p$

$$p(3p + 8)(9p^2 - 24p + 64)$$

5)  $d^3c + 343c$

$$c(d + 7)(d^2 - 7d + 49)$$

6)  $216h^3q + 8q$

$$8q(3h + 1)(9h^2 - 3h + 1)$$

7)  $d^3 - 512$

$$(d - 8)(d^2 + 8d + 64)$$

8)  $343r^3 - 8g^3$

$$(7r - 2g)(49r^2 + 14rg + 4g^2)$$

9)  $512b^3 - 729$

$$(8b - 9)(64b^2 + 72b + 81)$$

10)  $729b^3 + 27c^3$

$$27(3b + c)(9b^2 - 3bc + c^2)$$

11)  $d^3 + 729$

$$(d + 9)(d^2 - 9d + 81)$$

12)  $n^3s - 729s$

$$s(n - 9)(n^2 + 9n + 81)$$

