

Name: _____ Per: _____ Date: _____
Serafino • Algebra 2E

4B-2 Factoring Sum/Difference of Cubes

Factor complexly. Find all x -intercepts. Use the quadratic formula on the quadratic trinomial. Sketch with the real x -intercept and the y -intercept.

1. $f(x) = x^3 + 512$

2. $f(x) = 27x^3 - 1$

3. $f(x) = -27x^3 + 216$

4. $f(x) = 8x^3 - 27$

5. $f(x) = x^4 + 64x$

6. $f(x) = -2x^3 - 54$

7. $f(x) = 4x^5 - 32x^2$

8. $f(x) = 2x^3 - 250$

9. $f(x) = -27x^3 - 1$

10. $f(x) = 64x^3 - 1$

11. $f(x) = -x^4 - 27x$

12. $f(x) = 2x^3 - 54$