

5-3**Practice**

Form G

Solving Polynomial Equations**Find the real or imaginary solutions of each equation by factoring.**

1. $8x^3 - 27 = 0$

2. $x^3 + 64 = 0$

3. $2x^3 + 54 = 0$

4. $2x^3 - 250 = 0$

5. $4x^3 - 32 = 0$

6. $27x^3 + 1 = 0$

7. $64x^3 - 1 = 0$

8. $x^3 - 27 = 0$

For Exercises 23 and 24, write an equation to model each situation. Then solve each equation by graphing.

23. The volume V of a container is 84 ft^3 . The width, the length, and the height are x , $x + 1$, and $x - 4$ respectively. What are the container's dimensions?

24. The product of three consecutive integers $n - 1$, n , and $n + 1$ is -336 . What are the integers?

38. Your mother is 25 years older than you. Your father is 3 years older than your mother. The product of all three ages is 32,130. How old is your father?