

## Chapter 7 Test Review:

Write the simplest polynomial function with the given roots.

1. 1, 4, and  $-3$

2.  $-5i$ , 2, and 7

3.  $-i$ ,  $-3$ , and  $-1$

4.  $2i$ , 4, and  $\sqrt{6}$

Solve each equation by finding all roots.

5.  $4x^4 - 8x^3 - 3x^2 - 18x - 27 = 0$

6.  $x^4 + 3x^3 - x^2 + 9x - 12 = 0$

7.  $x^4 - 3x^3 - 8x^2 + 22x - 24 = 0$

8.  $x^3 + 6x^2 + 4x + 24 = 0$

9.  $x^4 - 2x^3 - 14x^2 - 2x - 15 = 0$

10.  $x^4 - 16 = 0$

11.  $x^4 + 4x^3 + 4x^2 + 64x - 192 = 0$

12.  $x^3 + 3x^2 + 9x + 27 = 0$

13.  $x^4 - 9x^2 + 18 = 0$

14.  $4x^3 - 10x^2 - 6x = 0$