

6-4 Intercepts and Roots

Name _____

In 1-5, find the x-intercepts and the y-intercepts of the given equations.

1. $f(x) = x^2 + 8x - 9$ x-intercept = _____ y-intercept = _____

2. $f(x) = 3x - 9$ x-intercept = _____ y-intercept = _____

3. $f(x) = x^2 + 6x - 5$ x-intercept = _____ y-intercept = _____

4. $f(x) = 4x^2 - 7x - 2$ x-intercept = _____ y-intercept = _____

5. $f(x) = x^3 + 2x^2 - x - 2$ x-intercept = _____ y-intercept = _____

6. What are the roots of $x^2 + x - 20$? _____

7. What are the roots of $x^2 + 4x - 5$? _____

8. What are the roots of $x^3 - 4x$? _____

In 9- 12, write the polynomial of least degree for each set of roots given.

9. 2, 5 _____

10. 1, 4i, -4i _____

11. 3, 2, 1 _____

12. 2, 2i, -2i _____