

4.3 Notetaking with Vocabulary (continued)**Extra Practice**

In Exercises 1–4, divide using polynomial long division.

1. $(x^2 + 6x + 12) \div (x - 3)$

2. $(x^3 - 4x^2) \div (x^2 - 16)$

3. $(4x^3 + 13x^2 + 27x + 6) \div (4x + 1)$

4. $(x^4 + 2x^3 + 5x^2 + 3x) \div (x^2 - x)$

In Exercises 5–8, divide using synthetic division.

5. $(x^2 - 10x + 2) \div (x - 2)$

6. $(x^3 + 4x^2 + 6x + 4) \div (x + 2)$

7. $(2x^3 - 54) \div (x + 3)$

8. $(2x^4 - 11x^3 + 11x^2 + 4x + 4) \div (x - 4)$