

### Practice 9.3

Find all holes, vertical asymptotes and horizontal asymptotes.

$$1. f(x) = \frac{x^2 + x - 2}{x^2 - x - 6}$$

$$2. f(x) = \frac{2x^2}{x^2 - 1}$$

$$3. f(x) = \frac{3}{x - 2}$$

$$4. f(x) = \frac{2x - 1}{x}$$

$$5. f(x) = \frac{x^2 + x - 12}{x^2 - 9}$$

$$6. f(x) = \frac{x^2 - 4}{x + 3}$$

$$7. f(x) = \frac{x^2 - x}{x + 1}$$

$$8. f(x) = \frac{x^2 - x - 2}{x - 1}$$

$$9. f(x) = \frac{x + 1}{x^2 + 3x + 2}$$

$$10. f(x) = \frac{x^2 - 9}{x^2 - 2x - 3}$$