

### Exercises 1.5

Add/Subtract the following fractions, then simplify completely, expressing the answer as a single fraction in reduced form.

$$1. \frac{x}{(x-2)(x+3)} + \frac{5}{(x+3)(x+1)}$$

$$2. \frac{1}{x} + \frac{1}{x^2 - x}$$

$$3. \frac{6}{x^2 - 4} + \frac{2}{x^2 - 5x + 6}$$

$$4. \frac{4}{x^2 - 9} + \frac{3}{x^2 + 6x + 9}$$

$$5. \frac{3x}{x^2 + 5x + 6} + \frac{x - 2}{x^2 + 2x - 3}$$