

Exercises 1.4

Multiply/Divide the following fractions, then reduce as much as possible.

$$1. \frac{x^2 - 3x - 4}{x^2 - x - 2} \cdot \frac{x^2 - 4}{x^2 + x - 20}$$

$$2. \frac{2x^2 + x - 6}{3x^2 - 8x - 3} \cdot \frac{x^2 - 7x + 12}{2x^2 - 7x - 4}$$

$$3. \frac{3x^2 - 9x - 30}{2x^2 - 9x - 5} \cdot \frac{2x^2 - 7x - 4}{6x^2 - 30x + 24}$$

$$4. \frac{12x - 4x^2}{x^2 + x - 12} \cdot \frac{x^2 + 2x - 8}{x^3 - 4x}$$

$$5. \frac{x^2 - 8x + 15}{x^2 - x - 6} \div \frac{x^2 + x - 20}{x^2 - 6x + 8}$$

$$6. \frac{6x^2 + 11x + 3}{2x^2 - 7x - 15} \div \frac{9x^2 - 1}{2x^2 - 9x - 5}$$

$$7. \frac{6x^2 + 9x - 15}{4x^2 - 4} \div \frac{2x^2 + 8x + 6}{10x^2 + 5x - 50}$$