

NAME: \_\_\_\_\_

# SIMPLIFYING ALGEBRAIC EXPRESSIONS

**WORKSHEET**

SIMPLIFY THE GIVEN FRACTIONS.

$$\frac{6x}{4} + \frac{x+7}{7} =$$

$$\frac{5x}{8} + \frac{x+1}{6} =$$

$$\frac{x^2 - 4}{x + 2x} =$$

$$\frac{t^2 + 2t^2}{t^2} =$$

$$\frac{4b^2}{2ab - 8b^2} =$$

$$\frac{3q - q^2}{q^2} =$$

$$\frac{x + 7}{x^2 + 10x + 21} =$$

$$\frac{x^2 - 10x + 25}{x^2 - 5x} =$$

$$\frac{(x + 3)(x + 4)}{2x + 7} =$$

$$\frac{14x - 24 - 2x^2}{3x^2 - 4x - 15} =$$

$$\frac{x^2 + 7x + 12}{x^2 + 12x + 36} =$$

$$\frac{2(x + 3)}{(x + 3)} =$$

NAME: \_\_\_\_\_

# SIMPLIFYING ALGEBRAIC EXPRESSIONS

## WORKSHEET

### Answers

$$\frac{6x}{4} + \frac{x+7}{7} = \frac{23x+14}{14}$$

$$\frac{5x}{8} + \frac{x+1}{6} = \frac{19x+4}{24}$$

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

$$\frac{t^2 + 2t^2}{t^2} = 3$$

$$\frac{4b^2}{2ab - 8b^2} = \frac{2b}{a - 4b}$$

$$\frac{3q - q^2}{q^2} = \frac{3q}{q^2 - 1}$$

$$\frac{x+7}{x^2 + 10x + 21} = \frac{1}{x+3}$$

$$\frac{x^2 - 10x + 25}{x^2 - 5x} = \frac{(x-5)^2}{x^2 - 5x}$$

$$\frac{(x+3)(x+4)}{2x+7} = \frac{(x+3)(x+4)}{2x+7}$$

$$\frac{14x - 24 - 2x^2}{3x^2 - 4x - 15} = \frac{(x-4)(-2x+6)}{(x-3)(3x+5)}$$

$$\frac{x^2 + 7x + 12}{x^2 + 12x + 36} = \frac{(x+4)(x+3)}{(x+6)^2}$$

$$\frac{2(x+3)}{(x+3)} = 2$$