

Name: _____

Date: _____

Learning Goal 6.1

Simplifying and applying operations to rational expressions, identifying any non-permissible values.

Recall Adding and Subtracting Fractions

$$\frac{3}{8} + \frac{5}{12}$$

$$\frac{7}{9} - \frac{35}{6}$$

Extend to rational expressions. Simplify and state the non-permissible values.

a.
$$\frac{2a}{b} - \frac{a-1}{b}$$

b.
$$\frac{2x}{x+4} + \frac{8}{x+4}$$

c.
$$\frac{x^2}{x-2} + \frac{3x}{x-2} - \frac{10}{x-2}$$

d.
$$\frac{2x}{xy} + \frac{4}{x^2}$$

e.
$$\frac{y^2 - 20}{y^2 - 4} + \frac{y - 2}{y + 2}$$

f.
$$\frac{1 + 1/x}{x - 1/x}$$

g.
$$\frac{3}{2a} + \frac{5a^3}{3ab^3} \times \frac{12b^2}{10a^2}$$