

Name: _____

TA: _____

Math 11 Pre-Calculus LG 10 Ver A

1. Write each rational expression in simplest form. State any non-permissible values for the variables.

a) $\frac{4x(x-3)}{3x(x-3)}$

b) $\frac{3x-6}{12-6x}$

c) $\frac{x^2-x-12}{2x^2-32}$

d) $\frac{3x^2-13x-10}{x^2-x-20}$

2. Multiply or divide each rational expression.

a) $\frac{3(a-b)}{(a-2)(a+1)} \times \frac{(a-2)(a+2)}{6(a-b)}$

b) $\frac{x^2+3x+2}{2x+2} \times \frac{2x+6}{x^2+5x+6}$

$$c) \frac{6x^2}{5y} \div \frac{2x}{y^3}$$

$$d) \frac{x+2}{x^3+3x^2+2x} \div \frac{x^2-4}{3x^2+8x+4}$$

3. Add or subtract. Give answers in simplest form.

$$a) \frac{2}{3ab^2} + \frac{5}{6a^2b^3}$$

$$b) \frac{2x}{x^2+5x+6} - \frac{x-6}{x^2+6x+8}$$

4. Simplify each rational expression

$$a) \frac{x^2-3x+2}{x^2-4} \times \frac{x+3}{x^2+3x} \div \frac{1}{x+2}$$

$$b) \frac{2x}{4x^2-9} + \frac{x}{2x^2+5x+3} - \frac{1}{2x-3}$$