Name: _____ is Smart!

Date: _____

Math 115 Spring 2026
Mr. Sahney

Standard 12 Practice

Complex Fractions

1. Simplify the following expressions by writing it as a single fraction in lowest terms.

a) $\dfrac{\frac{1}{x+3}}{1+\frac{1}{x+3}}$

b) $\dfrac{\frac{7}{a+h}-\frac{7}{a}}{h}$

c) $\dfrac{1+\frac{4}{c-4}}{1-\frac{4}{c-4}}$

d) $\dfrac{\frac{1}{x}-\frac{1}{6}}{\frac{1}{x^2}-\frac{1}{36}}$

Rational Equations

2. Solve for x:

$$\frac{10}{x+8}=\frac{6}{7x+3}$$

3. Solve for y:

$$\frac{2}{y+2}+\frac{4}{y-2}=\frac{y-1}{y^2-4}$$

4. Solve for y:

$$\frac{y}{y-2}+\frac{3}{y+4}=\frac{12y-12}{y^2+2y-8}$$

5. Solve for a:

$$\frac{a}{a-5}+\frac{4}{a-1}=\frac{9a-25}{a^2-6a+5}$$

Literal Equations: Solve for the specific variable

a) Solve for r:

$$\frac{b}{r}=n$$

b) Solve for j:

$$k=\frac{j}{9-j}$$

c) Solve for d:

$$\frac{b+4}{10-d}=\frac{5}{6}$$