Algebra 1

Chapter 11

Section 11-4

Simplify by adding or subtracting.

$\frac{2}{5} + \frac{3}{5}$

$\frac{5}{5}$

1

$\frac{2}{2} \cdot \frac{3}{10} - \frac{1}{4} \cdot \frac{5}{5}$

LCM: 20

$\frac{6}{20} - \frac{5}{20}$

$\frac{1}{20}$

Simplify by adding or subtracting.

$$\frac{13}{2x^2} - \frac{1}{2x^2}$$

$\frac{12}{2x^2}$

GCF: 2

$\frac{6}{x^2}$

$$\frac{2x}{4+x} + \frac{21}{x+4}$$

$\frac{2x+21}{x+4}$

Add or subtract. Then simplify.

3. $\frac{3}{3} \cdot \frac{2x-1}{2x} - \frac{2}{3} \cdot \frac{2x}{2x}$

$\frac{6x-3}{6x} - \frac{4x}{6x}$

$\frac{2x-3}{6x}$

$\frac{2y-7}{y-3} + \frac{1}{y-3}$

$\frac{2y-6}{y-3}$

$\frac{2(y-3)}{1(y-3)}$

2

4. $\frac{m-1}{m-2} + \frac{(m-2)}{4} \cdot \frac{(m-2)}{(m-2)}$

$\frac{4m-4}{4(m-2)} + \frac{m^2-4m+4}{4(m-2)}$

$\frac{m^2}{4(m-2)}$

Find the LCM of each group.

$12x, 4$	$8xy^3z^3, 10xz^2$	$x+5, 9$
$12x$	GCF: $2xz^2$	$9x+45$ or $9(x+5)$
Product / GCF	$\frac{8xy^3z^3 \cdot 10xz^2}{2xz^2}$	
$\frac{12x \cdot 4}{4} = \frac{48x}{4} = 12x$	$40xy^3z^3$	

Subtract.

$$\frac{x}{x^2-11x+24}-\frac{8}{x^2-11x+24}$$

$$=\frac{x-8}{x^2-11x+24}\rightarrow(x-3)(x-8)$$

add mult

$$\frac{\cancel{x-8}}{(x-3)\cancel{(x-8)}}$$

$$\boxed{\frac{1}{x-3}}$$

Add the expressions.

$$\frac{s-4}{s-2}+\frac{9}{1}\cdot\frac{s-2}{s-2}$$

$$\frac{s-4}{s-2}+\frac{9s-18}{s-2}$$

$$\frac{10s-22}{(s-2)}=\frac{2(5s-11)}{s-2}$$