

## 5.6: Sums and Differences of Rational Expressions

Objective: To Add and Subtract Rational Expressions

1) Take out HW to be checked

- HW problems you would like done out?

2) Levels 3-4 Practice Worksheets

5.6: Objective: To Add and Subtract Rational Expressions

3) Exit Ticket

***HW: FINISH Study Guide Worksheet 5-6***

## Practice: Level 3

Kuta Software - Infinite Algebra 1

## Adding + Subtracting Rational Expressions

Simplify each expression.

13)  $\frac{7}{3n^2 + 24n} - \frac{7}{2n}$

14)  $\frac{6}{v-2} - \frac{7}{2v+7}$

15)  $\frac{6x}{3} + \frac{7}{15x+3}$

16)  $\frac{5v}{v-3} + \frac{5}{v+6}$

17)  $\frac{4x}{x^2 + 4x - 5} - \frac{5}{4}$

18)  $\frac{2}{x+3} - \frac{6x}{2x+1}$

## Practice: Level 4

Kuta Software - Infinite Algebra 1

## Adding + Subtracting Rational Expressions

Simplify each expression.

19)  $\frac{4x}{x+3} - \frac{4x}{x+6}$

20)  $\frac{2x}{3x+3} - \frac{2}{x+5}$

21)  $\frac{6}{x-2} + \frac{6}{x+1}$

22)  $\frac{v-2}{3v^4 - 15v^3 - 18v^2} + 3v$

## Practice: Level 3

Kuta Software - Infinite Algebra 1

## Adding + Subtracting Rational Expressions

Simplify each expression.

$$13) \frac{7}{3n^2 + 24n} - \frac{7}{2n}$$

$$\frac{-154 - 21n}{6n(n + 8)}$$

$$15) \frac{6x}{3} + \frac{7}{15x + 3}$$

$$\frac{30x^2 + 6x + 7}{3(5x + 1)}$$

$$17) \frac{4x}{x^2 + 4x - 5} - \frac{5}{4}$$

$$\frac{-4x - 5x^2 + 25}{4(x + 5)(x - 1)}$$

$$14) \frac{6}{v - 2} - \frac{7}{2v + 7}$$

$$\frac{5v + 56}{(2v + 7)(v - 2)}$$

$$16) \frac{5v}{v - 3} + \frac{5}{v + 6}$$

$$\frac{5v^2 + 35v - 15}{(v + 6)(v - 3)}$$

$$18) \frac{2}{x + 3} - \frac{6x}{2x + 1}$$

$$\frac{-14x + 2 - 6x^2}{(2x + 1)(x + 3)}$$

## Practice: Level 4

Kuta Software - Infinite Algebra 1

## Adding + Subtracting Rational Expressions

Simplify each expression.

19) 
$$\frac{4x}{x+3} - \frac{4x}{x+6}$$

$$\frac{12x}{(x+3)(x+6)}$$

20) 
$$\frac{2x}{3x+3} - \frac{2}{x+5}$$

$$\frac{2x^2 + 4x - 6}{3(x+1)(x+5)}$$

21) 
$$\frac{6}{x-2} + \frac{6}{x+1}$$

$$\frac{12x - 6}{(x+1)(x-2)}$$

22) 
$$\frac{v-2}{3v^4 - 15v^3 - 18v^2} + 3v$$

$$\frac{9v^5 - 45v^4 - 54v^3 + v - 2}{3v^2(v+1)(v-6)}$$

Score: \_\_\_\_/

Name \_\_\_\_\_

**Exit Ticket**

Block \_\_\_\_\_

Simplify the following:

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$$\frac{x^2}{4x+16} - \frac{4}{x+4}$$

Score: \_\_\_\_/

Name \_\_\_\_\_

**Exit Ticket**

Block \_\_\_\_\_

Simplify the following:

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