

Practice: Level 2

Kuta Software - Infinite Algebra 1

Adding + Subtracting Rational Expressions

Simplify each expression.

7) $\frac{b-3}{12b+18} + \frac{4b}{12b+18}$

8) $\frac{n-4}{n^2-n-20} + \frac{n+1}{n^2-n-20}$

$$9) \frac{7x}{2x} - \frac{(x-2)(2x)}{(20x+16)}$$

$$\frac{(7x)(20x+16) - (x-2)(2x)}{(2x)(20x+16)}$$

$$\frac{140x^2 + 112x - (2x^2 - 4x)}{(2x)(20x+16)}$$

$$\frac{140x^2 + 112x - 2x^2 + 4x}{(2x)(20x+16)}$$

$$\frac{138x^2 + 116x}{(2x)(20x+16)}$$

$$= \frac{(2x)(69x + 58)}{(2x)(20x+16)}$$

$$= \frac{69x + 58}{4(5x+4)}$$

11) $\frac{7v}{8} - \frac{8v-4}{5v-2}$

$$\frac{(7v)(5v-2) - (8)(8v-4)}{(8)(5v-2)}$$

$$= \frac{35v^2 - 14v - 64v + 32}{(8)(5v-2)}$$

$$= \frac{35v^2 - 78v + 32}{(8)(5v-2)}$$

10) $\frac{8}{7v-6} + \frac{4}{3v^2}$

$$\frac{8(3v^2) + 4(7v-6)}{(7v-6)(3v^2)}$$

$$= \frac{24v^2 + 28v - 24}{(7v-6)(3v^2)}$$

$$= \frac{4(6v^2 + 7v - 6)}{(7v-6)(3v^2)}$$

$$\begin{array}{r} 36 \\ 1 \diagdown 36 \\ 2 \quad 18 \\ 3 \quad 12 \\ 4 \quad 9 \\ 6 \end{array}$$

12) $\frac{4}{n+7} - \frac{7}{n-2}$

$$\frac{4(n-2) - 7(n+7)}{(n+7)(n-2)}$$

$$\frac{4n - 8 - 7n - 49}{(n+7)(n-2)}$$

$$= \frac{-3n - 57}{(n+7)(n-2)}$$

HW: Study Guide Worksheet 5-6 #1 - 6, 9 - 12