Math-3A Name_____ ID: 1

SM3-A HW #4-1 (Add/subtract rational expressions) Date_____ Period____

Simplify each expression.

1) $\frac{x-2y}{16yx^2}+\frac{x+3y}{16yx^2}$

2) $\frac{u-v}{20u}+\frac{u-3v}{20u}$

3) $\frac{x-5y}{16y^3}+\frac{x-y}{16y^3}$

4) $\frac{x-y}{36x^2y}+\frac{4x-2y}{36x^2y}$

5) $\frac{x-2y}{12x^2y}-\frac{4x+y}{12x^2y}$

6) $\frac{x+6y}{12y^3}-\frac{x+4y}{12y^3}$

7) $\frac{x-2y}{20x^2}-\frac{x+6y}{20x^2}$

8) $\frac{x-6y}{36x}-\frac{x-3y}{36x}$

9) $\frac{2n}{8m}-\frac{m+6n}{8m}$

10) $\frac{x+3y}{6}+\frac{5x}{3x}$

11) What property was improperly applied and where was the error made for the following:

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

12) What property was improperly applied and where was the error made for the following:

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

Simplify each and state the excluded values.

13) $\dfrac{3n^3+33n^2+90n}{3n^2-12n-180}$

14) $\dfrac{m^2+12m+27}{2m^2+4m-126}$

15) $\dfrac{p^2+9p-10}{p^2+12p+20}$

16) $\dfrac{2x^3-22x^2+36x}{2x^2+12x-32}$