Math 2 Name_____

Unit 5.4 Add and Subtract Rational Expressions Practice

Period____

Simplify each expression.

1) $\frac{x-4y}{20x^3}+\frac{x+4y}{20x^3}$

2) $\frac{x+3y}{12y^4}-\frac{2x-6y}{12y^4}$

3) $\frac{5x}{6}+\frac{4}{4x}$

4) $\frac{2}{6xy^2}+\frac{3y}{2x}$

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

6) $\frac{2r-4}{3(r+1)}-\frac{r+4}{3(r+1)}$

7) $\frac{2}{v+6}-\frac{2v}{3v-1}$

8) $\frac{k+4}{5(k+1)}+\frac{6}{4}$

9) $\frac{2}{6}-\frac{n+5}{n-5}$

10) $\frac{a-4}{a-3}+\frac{6}{3a}$

11) $\frac{3}{3x^2} - \frac{4x+2}{2(x+3)}$

12) $\frac{3}{3(n+5)(n-1)} - \frac{2n}{4}$

13) $\frac{2r}{2r-5} - \frac{2r}{r+5}$

14) $\frac{5}{5m} - \frac{6}{(5m+3)(m-3)}$

15) $\frac{3x}{x+4} - \frac{x+3}{4(3x+1)}$

16) $\frac{2x}{2} + \frac{x+4}{15x(x-1)(x-2)}$

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

18) $\frac{6p}{5p^2} - \frac{3p+1}{5p^2+18p+9}$

19) $\frac{6}{5a^2-26a-24} - \frac{2}{2a}$

20) $\frac{4}{n+5} - \frac{6n}{n-3}$

21) $\frac{2b}{5b-2} + \frac{2b}{b+4}$

22) $\frac{3m}{2m^4+2m^3} + \frac{6m}{m-1}$

Math 2 Name_____

Unit 5.4 Add and Subtract Rational Expressions Practice

Period____

Simplify each expression.

1) $\frac{x-4y}{20x^3}+\frac{x+4y}{20x^3}$

$\frac{1}{10x^2}$

2) $\frac{x+3y}{12y^4}-\frac{2x-6y}{12y^4}$

$\frac{-x+9y}{12y^4}$

3) $\frac{5x}{6}+\frac{4}{4x}$

$\frac{5x^2+6}{6x}$

4) $\frac{2}{6xy^2}+\frac{3y}{2x}$

$\frac{2+9y^3}{6xy^2}$

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

$\frac{4x-4}{x^2-3x-18}$

6) $\frac{2r-4}{3(r+1)}-\frac{r+4}{3(r+1)}$

$\frac{r-8}{3r+3}$

7) $\frac{2}{v+6}-\frac{2v}{3v-1}$

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

8) $\frac{k+4}{5(k+1)}+\frac{6}{4}$

$\frac{17k+23}{10(k+1)}$

9) $\frac{2}{6}-\frac{n+5}{n-5}$

$\frac{-2n-20}{3(n-5)}$

10) $\frac{a-4}{a-3}+\frac{6}{3a}$

$\frac{a^2-2a-6}{a(a-3)}$

11) $\frac{3}{3x^2} - \frac{4x+2}{2(x+3)}$

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

12) $\frac{3}{3(n+5)(n-1)} - \frac{2n}{4}$

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

13) $\frac{2r}{2r-5} - \frac{2r}{r+5}$

$\frac{-2r^2+20r}{(2r-5)(r+5)}$

14) $\frac{5}{5m} - \frac{6}{(5m+3)(m-3)}$

$\frac{5m^2-18m-9}{m(m-3)(5m+3)}$

15) $\frac{3x}{x+4} - \frac{x+3}{4(3x+1)}$

$\frac{35x^2+5x-12}{4(x+4)(3x+1)}$

16) $\frac{2x}{2} + \frac{x+4}{15x(x-1)(x-2)}$

$\frac{15x^4-45x^3+30x^2+x+4}{15x(x-2)(x-1)}$

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

$\frac{-19x+2-4x^2}{x(x+5)(x+2)}$

18) $\frac{6p}{5p^2} - \frac{3p+1}{5p^2+18p+9}$

$\frac{15p^2+103p+54}{5p(p+3)(5p+3)}$

19) $\frac{6}{5a^2-26a-24} - \frac{2}{2a}$

$\frac{32a-5a^2+24}{a(a-6)(5a+4)}$

20) $\frac{4}{n+5} - \frac{6n}{n-3}$

$\frac{-26n-12-6n^2}{(n-3)(n+5)}$

21) $\frac{2b}{5b-2} + \frac{2b}{b+4}$

$\frac{12b^2+4b}{(5b-2)(b+4)}$

22) $\frac{3m}{2m^4+2m^3} + \frac{6m}{m-1}$

$\frac{3m-3+12m^4+12m^3}{2m^2(m-1)(m+1)}$