Intermediate Algebra Name_____

Add & Subtract Rational Expressions Practice Test Date_____ Period____

Adding: Like Terms

1) $\frac{x-3y}{9y^2}+\frac{x+2y}{9y^2}$

A) $\frac{2x-y}{9y^2}$

B) $\frac{x-y+1}{18y^2}$

C) $\frac{x^2-xy-6y^2}{81y^4}$

D) $\frac{x-y}{18y^2}$

2) $\frac{a+2b}{9a^2b}+\frac{a+2b}{9a^2b}$

A) $\frac{3a+3b+4}{12b^2-a}$

B) $\frac{2a+b+1+6b^2}{6b^2+a+2b}$

C) $\frac{2a+4b}{9a^2b}$

D) $\frac{a+4b}{9a^2b}$

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

A) $\frac{3x-1}{6x-6}$

B) $\frac{x^2}{12x^2-24x+12}$

C) $\frac{x}{3x-3}$

D) $\frac{x}{2x-2}$

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

A) $\frac{2n+1}{4n^2-2n-12}$

B) $\frac{2n}{2n^2-n-6}$

C) $\frac{2n-1}{4n^2-2n-12}$

D) $\frac{2n-1}{2n^2-n-6}$

5) $\frac{v-3}{v^2+6v+9}+\frac{2v}{v^2+6v+9}$

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

B) $\frac{v}{v^2+2v-3}$

C) $\frac{3v-3}{v^2+6v+9}$

D) $\frac{2v-3}{v^2+6v+9}$

6) $\frac{b-1}{8b^3+8b^2}+\frac{b+1}{8b^3+8b^2}$

A) $\frac{4b^2+4b-1}{4b^2+8b+4}$

B) $\frac{8b^2+8b-3}{8b^2+8b}$

C) $\frac{1}{4b^2+4b}$

D) $\frac{8b^2-1}{8b^2+1}$

Subtracting: Like Terms

7) $\frac{3x}{9y^2} - \frac{2y}{9y^2}$

A) $\frac{x - 3y - 27y^2}{3yx - 9y^2}$

B) $\frac{3x - 2y}{9y^2}$

C) $\frac{2x}{27y^3}$

D) $\frac{4x + 1 - 2y}{9y^2}$

8) $\frac{m + 3n}{6m^3} - \frac{m + 3n}{6m^3}$

A) 0

B) $\frac{m^2 + 6mn + 9n^2}{36m^6}$

C) $\frac{3m + 1 + 3n}{4m^2n}$

D) 1

9) $\frac{2}{8(v - 1)} - \frac{v + 2}{8(v - 1)}$

A) $\frac{4v - 3}{4v^2 + 4v}$

B) $\frac{2v - 1}{2v^2 + 2v}$

C) $-\frac{v}{8v - 8}$

D) 0

10) $\frac{a + 1}{(a + 2)(2a - 1)} - \frac{a + 3}{(a + 2)(2a - 1)}$

A) $\frac{a - 1}{2a^2 + 3a - 2}$

B) $\frac{2a}{2a^2 + 3a - 2}$

C) $-\frac{2}{2a^2 + 3a - 2}$

D) $\frac{3a}{2a^2 + 3a - 2}$

Subtracting: Unlike Terms

11) $\frac{2y}{3x} - \frac{x + 3y}{3}$

A) $\frac{2y + x - x^2 - 3xy}{3x}$

B) $-\frac{y}{3(x - 1)}$

C) $\frac{-y + 1}{3(x - 1)}$

D) $\frac{2y - x^2 - 3xy}{3x}$

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

A) $\frac{4 + x}{x(3xy - 2x^2 + 1)}$

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

C) $\frac{2 - 3y}{2x^2y}$

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

13) $\frac{2}{n+1} - \frac{2}{3n+1}$

A) $\frac{6n}{3n+1}$

B) $\frac{4+2n}{(3n+1)(n+1)}$

C) $\frac{4n}{(3n+1)(n+1)}$

D) $\frac{4}{(3n+1)(n+1)}$

14) $\frac{3y}{2y^3} - \frac{3}{2x^2y}$

A) $\frac{9-4y^3x^2+2y^2x}{6y^2}$

B) $\frac{9}{4y^3x^2}$

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

D) $\frac{3x^2-3y}{2y^2x^2}$

15) $\frac{3}{2} - \frac{2p}{2(p+1)}$

A) $\frac{p+3}{2(p+1)}$

B) $\frac{3p}{2(p+1)}$

C) $\frac{5p}{2(p+1)}$

D) $\frac{p+2}{p+1}$

Adding: Unlike Terms

16) $\frac{2y}{2} + \frac{6x}{5x^2y}$

A) $\frac{1}{x}$

B) $\frac{2y+1+6x}{2+5x^2y}$

C) $\frac{2y+1+5x}{2+5x^2y}$

D) $\frac{5y^2x+6}{5xy}$

17) $\frac{n+1}{4n} + \frac{6n+3}{n+5}$

A) $\frac{10n+36-n^2}{(n+2)(n+4)}$

B) $\frac{11n+32}{(n+2)(n+4)}$

C) $\frac{25n^2+18n+5}{4n(n+5)}$

D) $\frac{30-5n}{(n+2)(n+4)}$

18) $\frac{6}{m+1} + \frac{2}{m-5}$

A) $\frac{7-4m-m^2}{2(m+1)}$

B) $\frac{8m-28}{(m+1)(m-5)}$

C) $\frac{1-m}{m+3}$

D) $\frac{1}{m+3}$