Algebra 1 Practice Unit 5b Summative Assessment Name_____

Rational Expressions

Period_____ Group____

Simplify each expression.

1) $\dfrac{p+6}{p^2+16p+60}$

2) $\dfrac{3x^2-27x}{x^2-17x+72}$

3) $\dfrac{1}{7n}\cdot\dfrac{10n+50}{n+5}$

4) $\dfrac{40m+80}{45m+90}\cdot\dfrac{45m-81}{5m-9}$

5) $\dfrac{63r^2-90r}{7}\div\dfrac{7r-10}{4}$

6) $\dfrac{x^2+12x+27}{x^2+18x+81}\div\dfrac{8x^2+24x}{x+9}$

7) $\dfrac{a-b}{18a^5}+\dfrac{a-4b}{18a^5}$

8) $\dfrac{b-5}{b^2-6b+8}+\dfrac{b+6}{b^2-6b+8}$

9) $\dfrac{3v+3}{2v+8}-\dfrac{v-3}{2v+8}$

10) $\dfrac{x-2}{9x^4-36x^3-45x^2}-\dfrac{x+3}{9x^4-36x^3-45x^2}$

11) $\dfrac{n^2-4n-5}{n-5}$

12) $\dfrac{4a-12}{4a-8}$

13) $\dfrac{k+1}{k+7}\cdot\dfrac{k^2+k-42}{k+1}$

14) $\dfrac{1}{9x}\cdot\dfrac{49x-28}{7x-4}$

15) $\dfrac{x-6}{x^2-6x+8}\div\dfrac{1}{x^2-6x+8}$

16) $\dfrac{5n^3+20n^2}{n+4}\div\dfrac{5n^3+50n^2}{6n-48}$

17) $\dfrac{m-4}{4m^2-8m}+\dfrac{6m+5}{4m^2-8m}$

18) $\dfrac{p+5}{p^2+4p-12}+\dfrac{p-1}{p^2+4p-12}$

19) $\dfrac{4x+5}{3x^4-15x^3}-\dfrac{4}{3x^4-15x^3}$

20) $\dfrac{4n}{6n^2+12n}-\dfrac{n+2}{6n^2+12n}$