ASSIGNMENT #9.6B Name_____

Date_____ Period____

Simplify each expression.

1) $\frac{8}{m-6} - \frac{2m-7}{m-1}$

2) $\frac{3n}{n+4} + \frac{5n}{2n+3}$

3) $\frac{n+5}{28n+12} + \frac{7n}{2}$

4) $\frac{5n}{n+2} - \frac{2n}{3n-8}$

5) $\frac{2}{a-6} + \frac{6}{a+5}$

6) $\frac{b-8}{b-5} - \frac{5}{6}$

7) $\dfrac{\frac{1}{2}}{\frac{1}{x}+\frac{8}{x}}$

8) $\dfrac{\frac{2}{x^2}-\frac{4}{x^2}}{\frac{2}{9}}$

9) $\dfrac{\frac{2}{m^2-m}+\frac{2}{m-1}}{m-1}$

10) $\dfrac{x}{\frac{3}{x+5}+\frac{x+5}{x}}$

11) $\dfrac{\frac{x+2}{6x}-\frac{x^2}{36}}{\frac{x+2}{6x}+\frac{3}{2}}$

12) $\dfrac{\frac{u}{25}+\frac{5u}{9}}{\frac{16}{9}+\frac{1}{3}}$

13) $\dfrac{x-6}{x+8} \div \dfrac{x-6}{x^2+10x+16}$

14) $\dfrac{4b^2+6b}{16b+24} \div \dfrac{2b}{8}$

15) $\dfrac{k^2-6k-7}{k-7} \cdot \dfrac{k-2}{k^2-5k-6}$

16) $\dfrac{3}{6x^2+6x} \cdot \dfrac{x+1}{6}$

17) $\dfrac{7b-14}{b^2+10b+24} \div \dfrac{1}{b+4}$

18) $(k+8) \div \dfrac{k^2-2k-8}{2k^3+4k^2}$

19) $\dfrac{v-6}{v^2-1} \div \dfrac{1}{v-1}$

20) $\dfrac{x-1}{12-x-x^2} \div \dfrac{1}{x-3}$

Solve each equation. Remember to check for extraneous solutions.

21) $\frac{9n-3}{n^2-3n}+\frac{1}{n^2-3n}=\frac{1}{n}$

22) $\frac{7}{k^2-k-12}-\frac{4}{k-4}=\frac{1}{k+3}$

23) $\frac{1}{x-1}+\frac{6}{x^2-x}=\frac{4}{x}$

24) $\frac{1}{n^2-7n}-\frac{1}{n-7}=\frac{6}{n^2-7n}$

25) $\frac{3x-18}{x+5}=\frac{x+8}{x^2-x-30}-\frac{1}{x-6}$

26) $\frac{v+7}{v}+\frac{1}{v}=\frac{1}{v^2+8v}$