Algebra II Name_____

Chapter 5 Test Review

Date_____ Period____

Simplify. Your answer should contain only positive exponents.

1) $\dfrac{3x^3}{2yx^4}$

2) $\dfrac{u^4}{3u^3v^2}$

3) $\left(\dfrac{n^3}{n}\right)^4$

4) $\left(\dfrac{2x}{2x^3}\right)^4$

5) $\dfrac{b^0}{-4a}$

6) $\left(\dfrac{2m^4}{2m^3n^{-1}}\right)^2$

Simplify each and state the excluded values.

7) $\dfrac{v^2+v-6}{v^2-5v-24}$

8) $\dfrac{p^2+9p+14}{5p^2+10p}$

9) $\dfrac{5n}{8}\cdot\dfrac{9}{10n}$

10) $\dfrac{2r}{4r^2}\div\dfrac{6}{3}$

Simplify each expression.

11) $\dfrac{1}{p+4}\cdot\dfrac{p^2-p-20}{9}$

12) $\dfrac{n^2+3n-54}{n+3}\cdot\dfrac{1}{n+9}$

13) $\frac{3}{x+2} \div \frac{x^2-36}{x^2-4x-12}$

14) $\frac{x^2-10x+9}{x+5} \div \frac{4}{x+5}$

15) $\frac{2}{4x^2+40x} \div \frac{1}{x+10}$

16) $\frac{4y}{5} - \frac{3x}{3y^2}$

17) $\frac{4}{5y} - \frac{3y}{2xy}$

18) $\frac{4}{3v+6} + \frac{4}{v+6}$

19) $\frac{r-1}{r+6} - \frac{3r}{6}$

20) $\frac{4v}{v^2+v-2} + \frac{5}{6}$

Solve each equation. Remember to check for extraneous solutions.

21) $\frac{x+4}{x^2} - \frac{1}{6x^2} = \frac{1}{3x}$

22) $\frac{1}{x} - \frac{2}{x^2} = \frac{1}{x^2}$

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

24) $\frac{1}{b^2+2b} = \frac{4}{b+2} - 4$

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