

# Chapter 9 Practice Test

Name: \_\_\_\_\_

Time Start: \_\_\_\_\_ Finish: \_\_\_\_\_

Total Time = \_\_\_\_\_

State all the excluded values in problems 1-6.

\_\_\_\_\_ 1.  $\frac{x-4}{2x+12}$

\_\_\_\_\_ 2.  $\frac{-90x+88}{10x}$

\_\_\_\_\_ 3.  $\frac{x}{4x+1} \cdot \frac{3-x}{2x-8}$

\_\_\_\_\_ 4.  $\frac{x-9}{2x} \cdot \frac{3+x}{3x-9}$

\_\_\_\_\_ 5.  $\frac{x^2+12x+11}{x^2+5x+6} \div \frac{x+14}{x^2+11x+30}$

\_\_\_\_\_ 6.  $\frac{x^2}{x^2-25} \cdot \frac{x+8}{x^2-1} \cdot \frac{2x}{x^2-4} \cdot \frac{3x-1}{x}$

Simplify each expression.

\_\_\_\_\_ 7.  $\frac{15a^3b^3}{20a^4b}$

\_\_\_\_\_ 8.  $\frac{6x^{180}}{2x^{178}}$

\_\_\_\_\_ 9.  $\frac{3x^5}{9x^3+18x^2}$

\_\_\_\_\_ 10.  $\frac{2x^3}{2x^2+12x}$

\_\_\_\_\_ 11.  $\frac{n^2+6n+8}{n^2+7n+10}$

\_\_\_\_\_ 12.  $\frac{n^3+7n^2+12n}{n^3+8n^2+15n}$

\_\_\_\_\_ 13.  $\frac{-20}{3x^3} \cdot \frac{9x}{25}$

\_\_\_\_\_ 14.  $\frac{4x+6}{5x^2+10x} \cdot \frac{5x}{6x+9}$

\_\_\_\_\_ 15.  $\frac{5x+10}{3x+6} \cdot \frac{2x-8}{5x-20}$

\_\_\_\_\_ 16.  $\frac{x^2+2x-15}{2x+4} \cdot \frac{x+2}{3x-9}$

\_\_\_\_\_ 17.  $\frac{x^2 + 2x - 8}{x^2 - 16} \bullet \frac{x^2 - 2x - 15}{x^2 + x - 6}$

\_\_\_\_\_ 18.  $\frac{x^2 - 2x - 3}{x^2 - 4x + 3} \bullet \frac{x^2 + x - 2}{x^2 + 6x + 5}$

\_\_\_\_\_ 19.  $\frac{3x - 9}{10} \div \frac{3}{20}$

\_\_\_\_\_ 20.  $\frac{3x + 6}{5x - 5} \div \frac{2x + 4}{5x + 15}$

\_\_\_\_\_ 21.  $\frac{x^2 + 7x + 10}{2x + 8} \div \frac{x + 2}{x + 4}$

\_\_\_\_\_ 22.  $\frac{2x + 10}{2x + 4} \div (x + 5)$

\_\_\_\_\_ 23.  $\frac{x^2 + 5x + 6}{x^2 + 3x + 2} \div \frac{x^2 + 8x + 15}{x^2 + 5x + 4}$

\_\_\_\_\_ 24.  $\frac{2x^2 + 15x + 18}{3x^2 + 19x + 6} \div \frac{8x + 12}{4x - 4}$