

# Chapter 10 Practice Test

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

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

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

**Put your simplified answer in the blank.**

\_\_\_\_\_ 1.  $\frac{-2}{5x^2} - \frac{2}{3x}$

\_\_\_\_\_ 2.  $\frac{1}{2x^2y^3} + \frac{3}{4x^3y}$

\_\_\_\_\_ 3.  $\frac{4}{5x^2y} + \frac{2}{3x^3y^2z}$

\_\_\_\_\_ 4.  $\frac{2}{x+3} + \frac{5}{x+4}$

\_\_\_\_\_ 5.  $\frac{3x}{x^2-6x+8} - \frac{1}{x-2}$

\_\_\_\_\_ 6.  $\frac{x-1}{x^2+8x+12} + \frac{x+4}{x^2+7x+10}$

**Solve for the variable making sure the answer is in simplified form.**

\_\_\_\_\_ 7.  $\frac{-4+n}{5} = \frac{n+2}{7}$

\_\_\_\_\_ 8.  $\frac{3}{2n} + \frac{7}{6n^2} = \frac{3}{n}$

\_\_\_\_\_ 9.  $\frac{2}{n} + \frac{4}{n+3} = \frac{4}{n}$

\_\_\_\_\_ 10.  $\frac{3}{2n^2} + \frac{6}{n^3} = \frac{5}{3n^2}$

\_\_\_\_\_ 11.  $\frac{2}{n} + \frac{4}{n+2} = \frac{6}{n+3}$

\_\_\_\_\_ 12.  $\frac{2}{n+3} + \frac{4}{n+6} = \frac{4n+10}{n^2+9n+18}$

**For 13- 18, determine the horizontal and vertical asymptotes for each function. If none exists for the function, just write “none.”**

13.  $y = \frac{4x^2}{x^2 - 25}$       H = \_\_\_\_\_      V = \_\_\_\_\_

14.  $y = \frac{4x^2 + 5}{x - 10}$       H = \_\_\_\_\_      V = \_\_\_\_\_

15.  $y = \frac{4x - 2}{x^2 - 9}$       H = \_\_\_\_\_      V = \_\_\_\_\_

16.  $y = \frac{x^6 + x - 6}{4x - 2}$       H = \_\_\_\_\_      V = \_\_\_\_\_

17.  $y = \frac{3x + 5}{x - 1}$       H = \_\_\_\_\_      V = \_\_\_\_\_

18.  $y = \frac{5x - 99}{x^2 + 8x + 12}$       H = \_\_\_\_\_      V = \_\_\_\_\_