Pre-Calculus Extra Unit B Review Questions Name:_____

1) Analyze the graph of $f(x) = \frac{1}{3}x^{-4}$ and give domain, range, and end behavior.

2) Without a calculator, describe the end behavior using the leading term test: $f(x) = -3x^5 + 7x^4 + 3x^3 - 11x - 5$

3) Without a calculator, find the domain, any vertical asymptotes, and any horizontal asymptotes: $f(x) = \frac{x^2}{x^2-25}$

4) Analyze the graph of $f(x) = 0.4^x$ and describe domain, range, and end behavior.

5) If you deposit $1000 in an account that earns 4.5% interest over a period of 3 years, find the amount in the account if interest is compounded:

a. once per year
b. quarterly
c. monthly
d. daily
e. continuously

6) Expand: $\log_3 9x^3y^3z^6$

7) Expand: $log\frac{\sqrt{gj^5k}}{100}$

8) Condense: $5\ln(x+3) + 3\ln 2x - 4\ln(x-1)$

9) Solve & Round to the nearest hundredth: $7\ln 2x = 28$

10) Solve: $\ln 2 + \ln x = \ln(x^2 - x + 2)$

Unit 2 Extra Review Problems

Ch. 2 Study Guide p.149 – 151 (#13, 14, 21,22, 25, 50 – 53)

Ch. 2 Practice Test p.153 (#1,2,10,13,25,26)

Ch. 3 Study Guide p.212 – 213 (#13,14,19, 31 – 46)

Ch. 3 Practice Test p.215 (#1 – 2, 12 – 14, 16 – 21, 23 – 24)

*Worked out solutions (from the textbook) are posted on my website!