

Pre-Calculus Chapter 3 Practice Test

Name: _____

Work together. Get everything right. You may use this during your Chapter 3 Test, but you will not be submitting it for points. You can expect your test to contain problems like these. Keep your writing small.

(#1) Graph $y = 4^x$.

(#2) Graph $y = -\frac{1}{2}e^{x-3} - 1$.

- (a) Label the two points corresponding to $(0,1)$ and $(1,e)$ on its parent curve.
- (b) Label any asymptotes.
- (c) State its domain and range.

(#3) Graph $y = 2\log_3(x+1)$.

- (a) Label the two points corresponding to $(1,0)$ and $(b,1)$ on its parent curve.
- (b) Label any asymptotes.
- (c) State its domain and range.

(#4) How much time would it take for a principal deposit of \$1200 to double if it were compounded continuously at 4.5% annually?

(#5) Expand $\log_4\left(\frac{36a^3b}{5c}\right)$.

(#6) Expand $\ln\left(\frac{4e^{3x}}{(2e^x)^2e^x}\right)$.

(#7) Condense the following expression:

$$2 + \frac{2x}{3} \log_7(e) - 5 \log_7(x) + \frac{1}{2} \log_7(y)$$

(#8) Condense the following expression:

$$x^2 - 3x + \frac{3}{5} \ln(c+2) - 2 \ln(d) + \frac{4}{5} \ln(b)$$

(#9) Solve $e^{2x} + 6e^x = 16$

(#10) Solve $\frac{128}{e^{4x^2+1}-8} = 32$