

GSE PreCalculus: Unit- Natural Logarithms and e
Unit Quiz Review

1. Write in natural log form: $e^x = 64$

2. Write in natural log form: $y = e^{x+5}$

3. Write in e form: $2 = \ln(x) - 7$

4. Write in e form: $\ln 40 = 5x$

5. Expand: $\log_3 \frac{x^2 \sqrt{y}}{z^7}$

6. Expand: $\log_5 (2x^2 b^3 z)^3$

7. Expand: $\log \frac{\sqrt{x-2}}{z}$

8. Expand: $\log \left(\frac{5a^3 b}{8} \right)$

9. Condense: $3\log 2 + 2\log x + \log z$

10. Condense: $5\log_2 a + \log_2 7 - \log_2 x - \log_2 9$

11. Condense: $\frac{2}{3}\log 9 + \frac{1}{2}\log x - \log y$

12. Condense: $\frac{1}{2}\log 8 - 5\log x - 3\log x$

13. Solve: $(e^{x+1}) - 7 = 20$

14. Solve: $3e^x + 7 = 28$

15. Solve: $3 = \ln(12 + 4x)$

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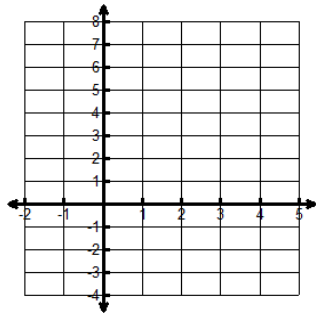
16. Solve: $-2(e^x) = -34$

17. Solve: $\ln(x + 3) = \ln(x + 8)$

18. Solve: $\ln(2x + 7) = \ln(x - 10)$

19. Solve: $\ln(x + 2) = 4$

20. $y = e^{x-2} - 1$



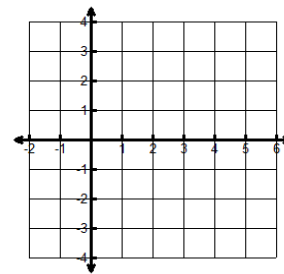
Transformations _____

Domain _____ Range _____

Asymptote _____

X-intercept _____ Y-intercept _____

21. $y = -\ln(x+1) - 2$



Transformations _____

Domain _____ Range _____

Asymptote _____

X-intercept _____ Y-intercept _____