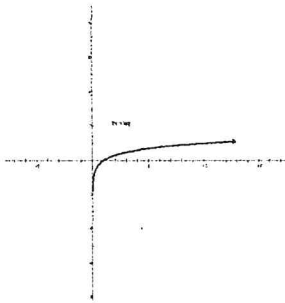
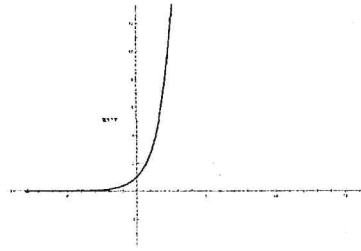


Logarithm Review Worksheet Answer Key

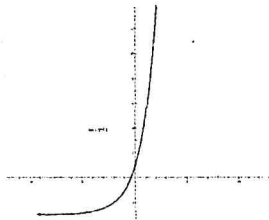
1.



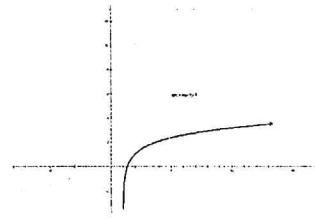
2.



3.



4.



5. $\ln\left(\frac{x^2 z^3}{\sqrt{7}y}\right)$

6. $\log_2(3t+9)$

7. $\log_b 8 + 2\log_b x + \log_b y - 4\log_b z$

8. $3\ln x - \frac{1}{2}\ln y - \frac{3}{2}\ln z$

9. -4

10. -4

11. 0

12. $\emptyset$

13. 7

14. -2

15. 2

16. 2

17. 2

18. -5

19. $\ln 21$

20. $\ln \frac{9}{5}$

21. $\frac{\log 7}{\log 3} \approx 1.771$

22. $\frac{\ln 33}{\ln 15} \approx 1.291$

23. 3

24. $\log 750$

25. $\frac{\log 8 - \log 5}{\log 20}$

$$26. \frac{\log 36}{\log 3 - \log 16}$$

$$27. \frac{199}{95}$$

$$28. 2$$

$$29. \frac{15 + \sqrt{265}}{2}$$

$$30. \pm 5$$

$$31. 12$$

$$32. 7$$

$$33. \frac{1 + \sqrt{5}}{2}$$

$$34. 20$$

$$35. \frac{1}{5}$$

$$36. 7$$

$$37. 3$$

$$38. \ln 2, \ln 3$$

$$39. \frac{\ln\left(\frac{5 \pm \sqrt{21}}{2}\right)}{\ln 4}$$

$$40. \ln\left(\frac{30 + \sqrt{904}}{2}\right)$$

(not the negative part)

41. a) \$ 2,183.46
 b) \$ 2,208.87
 c) \$ 2,211.29
 d) \$ 2,211.38