Exponential and Logarithmic Functions Day 1

Graph each of the following functions

1. $f(x)=\log_4 x$

2. $f(x)=-\log_2 x$

3. $f(x)=\log_4(x-3)$

4. $f(x)=\log_2 x-3$

5. $f(x)=\log_3(x-3)+4$

6. $f(x)=\log_2(x-4)+1$

7. $f(x)=-\log_4(x+1)+3$

8. $f(x)=2^x$

9. $f(x)=2^{x-3}$

10. $f(x)=3^x-4$

11. $f(x)=2^{x+3}-4$

12. $f(x)=-3^{x-4}$

13. $f(x)=\left(\frac{1}{3}\right)^{x+2}+1$

14. $f(x)=\left(\frac{1}{2}\right)^{x-4}-3$

15. $f(x)=3^{5-x}+2$

Exponential and Logarithmic Functions Day 2

Graph the following functions on a sheet of graph paper. Each function should have its own graph. Find and label at least 3 points on the graph including the key point. State the range and domain for each.

1. $f(x)=2^{x+6}-4$

2. $f(x)=-\left(\frac{1}{2}\right)^{x-1}+3$

3. $f(x)=5^{-x}-3$

4. $f(x)=\left(\frac{5}{4}\right)^{x-8}+2$

5. $f(x)=3(2)^{x+1}-5$

6. $f(x)=\left(\frac{3}{2}\right)^{4-x}-2$

7. $f(x)=-\left(\frac{1}{3}\right)^{2-x}-4$

8. $f(x)=\log_5(x-3)+2$

9. $f(x)=\log_4(x+4)-3$

10. $f(x)=-\log_2(x-3)$

11. $f(x)=\log_3(-x)$

12. $f(x)=\log_3(4-x)+2$

13. $f(x)=\log_3(x+6)+4$

14. $f(x)=\left|\log_2 x\right|$

15. $f(x)=\log_2|x|$