Week 14 Exponential Graphing

For each function state the base and the transformations.

1. $a(x)=(10)^{x-3}+12$ b=10 R3, U12

2. $b(x)=6\left(\frac{1}{2}\right)^{x+9}$ b=1/2 L9 VD by 6

3. $c(x)=-3(2)^{x}+2$ b=2 VD by 3 U2 over x-axis

4. $d(x)=4\left(\frac{1}{3}\right)^{x+5}+1$ b=1/3 VD by 4 L5, U1

5. $f(x)=-(3)^{x}-5$ b=3 over x-axis D5

6. $g(x)=-(2)^{\frac{x}{4}}-3$ b=2, over x-axis HD by 4, D3

Graph each function

7. $m(x)=2^{x-1}$ R1

8. $n(x)=5^{x}+3$ U3

9. $p(x)=\left(\frac{1}{2}\right)^{x}-4$ D4

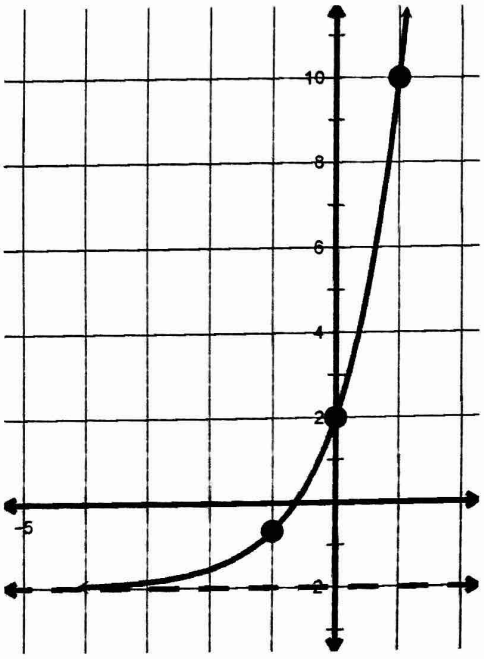
10. $r(x)=\left(\frac{1}{3}\right)^{x-1}+5$ R1, U5

11. $s(x)=-\frac{1}{2}(3)^{x}-1$ over x-axis VD by 1/2, D1

12. $t(x)=2(6)^{x+1}-2$ VD by 2, L1, D2

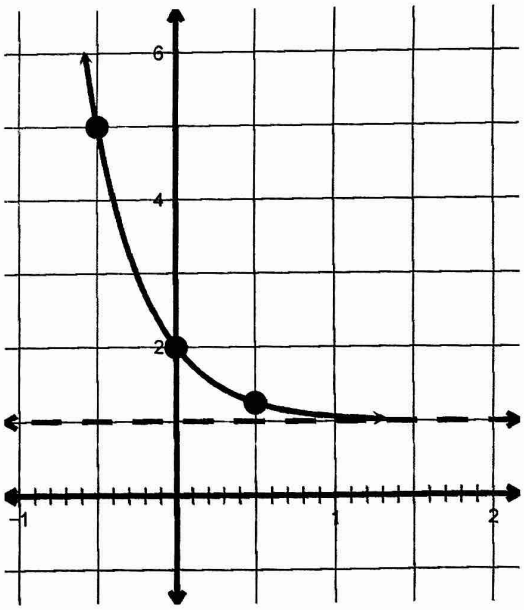
Find the equation for the following graphs.

13. Base 3



$y=4(3)^{x}-2$

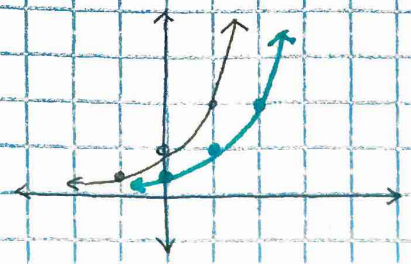
14. Base 4



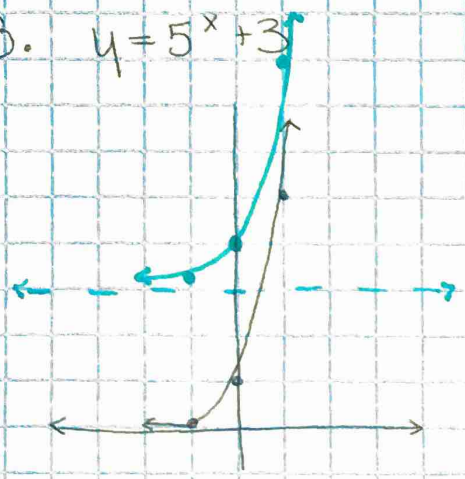
$y=(4)^{-x}+1$

final

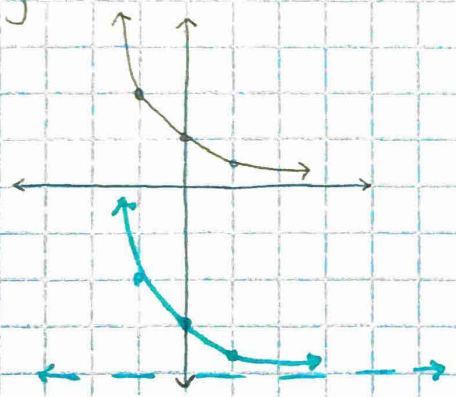
7. $y = 2^{x-1}$



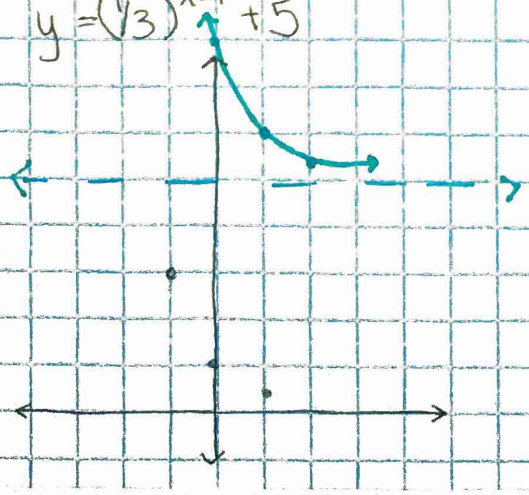
8. $y = 5^{x} + 3$



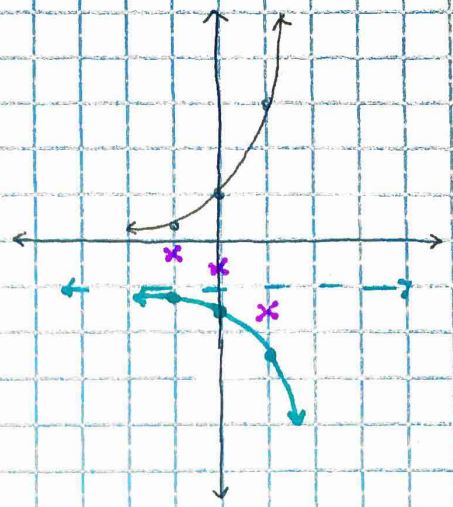
9. $y = (1/2)^{x} - 4$



10. $y = (1/3)^{x-1} + 5$



11. $y = -1/2\,(3)^{x} - 1$



12. $y = 2(6)^{x+1} - 2$