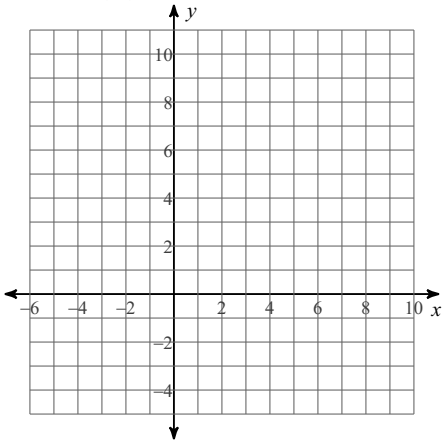
Algebra 1 Name_____

Week Twenty-Seven Homework

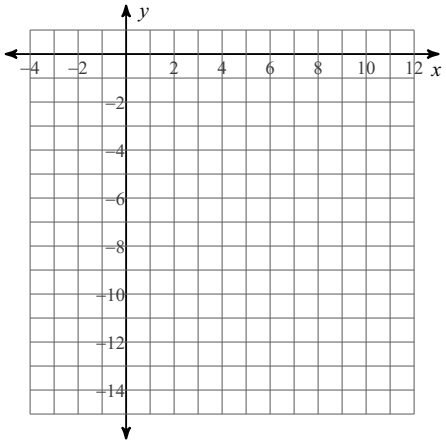
Date_____ Period____

Graph and identify the Exponential Curve.

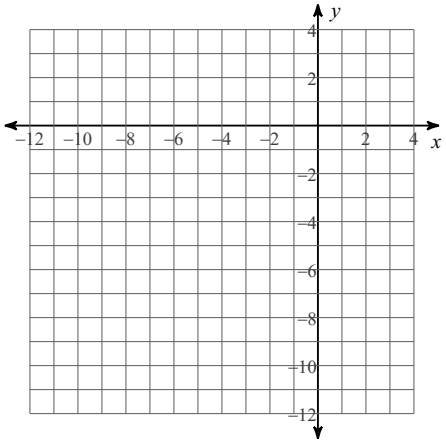
1) $y = 4 \cdot \left(\frac{3}{4}\right)^x - 3$



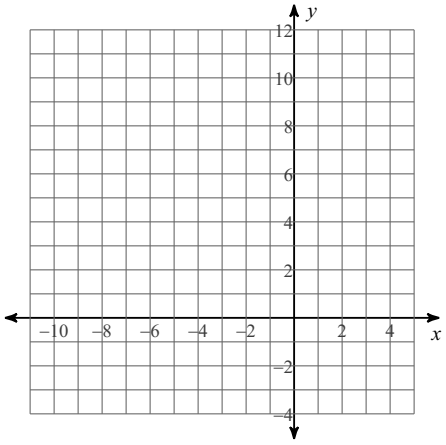
2) $y = -2 \cdot \left(\frac{1}{3}\right)^x - 1$



3) $-4 \cdot 2^x + 2$



4) $5 \cdot \left(\frac{3}{2}\right)^x - 2$



Find the TOTAL AMOUNT for each money item using $A = p(r + 1)^t$.

5) Ben deposited $350 in the bank at 2% interest for three years.

6) Kevin paid for a $2200 trip on his credit card at 23% interest but did not pay for four years.

7) Julia invested $5,600 at 9.3% for seven years.

8) Nelly borrowed $52,700 for college at a rate of 3.75% but paid ten years later.

Solve each equation for both solutions.

9) $3\left|x-5\right|=42$

10) $\left|x+6\right|+8=21$

11) $x^2+11x+29=5$

12) $x^2-10x+19=-2$

Solve each equation for a single solution. Expect some decimal solutions.

13) $7(5x+4)-16=152$

14) $5(6x-5)+4=219$

15) $3.3\cdot 4^x+11.5=64.3$

16) $-2.75\cdot 2^x+116.5=28.5$

17) $\frac{77}{3}+\sqrt{45}+2x=\left|-111\right|+6.1^2$

18) $\left|13.5\right|+\frac{32}{7}+3.3x=4.5^3+0.9x+\sqrt{22.5}$

19) $31=5\sqrt{13x-3}$

20) $10.5=\sqrt{\frac{x}{4}}+4.8$

21) $\frac{3}{x+10}=\frac{2.7}{4x}$

22) $\frac{3}{7x}=\frac{9}{x-8.5}$