Algebra III   Name: _____
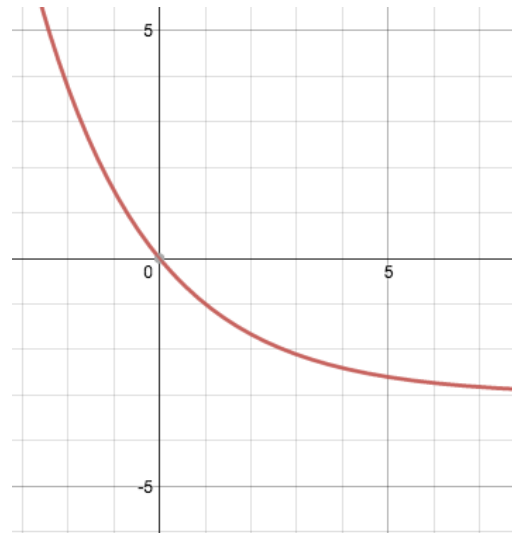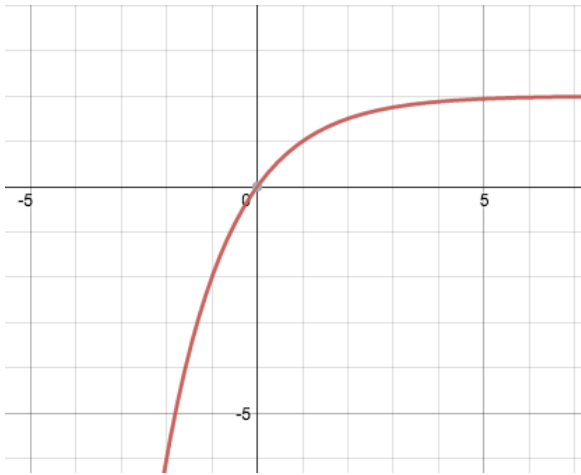Exponential Functions   2/22/18

1. Aladin had wished for $20,000,000 from Genie. Unfortunately, Aladin had already used his 3 wishes, so Genie found Aladin an investment that paid 12% interest that was compounded biweekly. If Aladin was able to put $100,000 into the investment, would he be able to reach his goal in 25 years?

2. Emperor Kuzco was in desperate need of $50,000 to build his summer pool house. Kronk was willing to help out, so he set aside $40,000 from his restaurant that he opened after their movie, Emperor's New Groove, closed at the box office. If Kronk put that money in an account that paid 3% interest compounded daily for 2 years, will he have the $50,000 that Kuzco needs?

3. When Mulan went back home after defeating Shan Yu and the rest of the Huns, she left with $20,000 in gold. She invested that money in a bank account in order to pay for her college education. The account paid 4.5% interest, compounded monthly. How much money did she have after 4 years?

4. Write the equations for the following graphs

5. Find the inverse for $f(x) = \dfrac{3x-4}{5}$.

6. Use composition to verify your answer in 5 is indeed the inverse.