Exponential Functions

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.
- 1. Graph $f(x) = 3^x$.



- 2. What graph transformations are needed to transform $f(x) = 3^x$ into
 - (a) $a(x) = 2 \cdot 3^x$
 - (b) $b(x) = 4 \cdot 3^x + 1$
 - (c) $c(x) = 3^{x+2}$
- 3. Given that the graph of g(x)(shown below) is an exponential function of the form $y = b^x$ that has been vertically shifted, find the equation for g(x).



- 4. Assume you have \$10,000 and a savings account offer with and effective annual interest rate of 4%. How much money would you have after one year in the bank if the money is compounded:
 - (a) annually?
 - (b) twice a year?
 - (c) daily?
 - (d) three times a day?