

Name: _____

Date: _____ Pd: _____

Functions 3 & 4 Review Worksheet

Functions 3 – Graphs & Symbolic

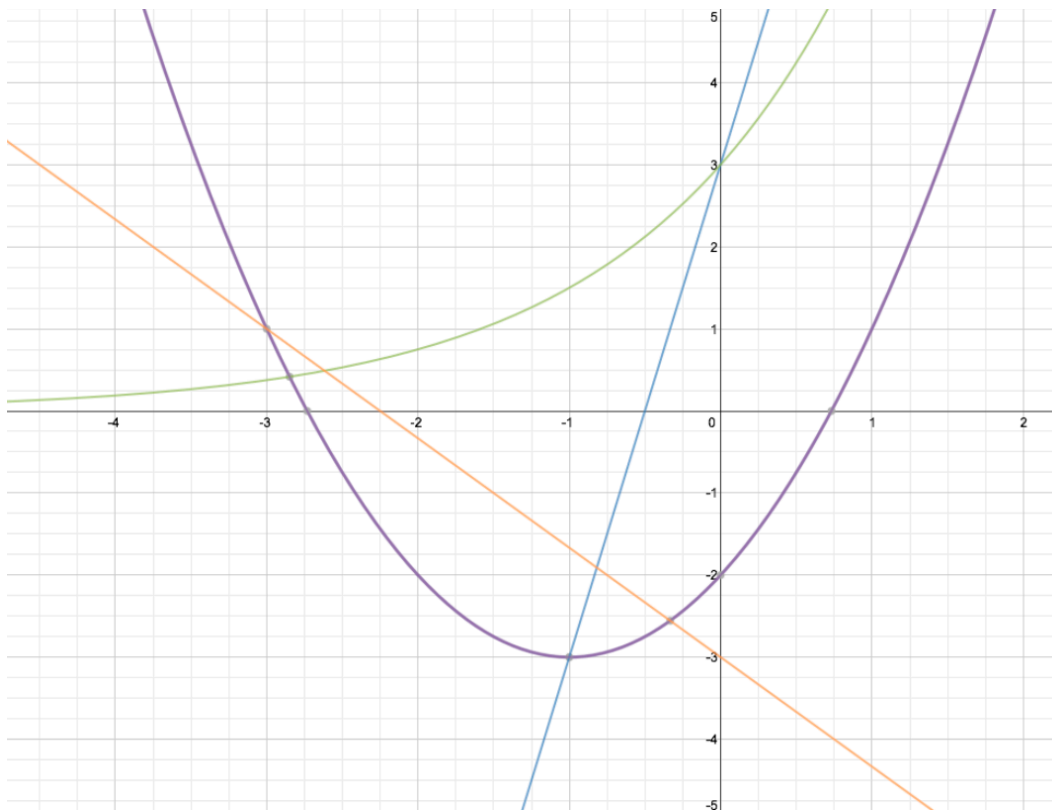
1) Match the following functions to those given on the graph with the function letter *a*, *b*, *c*, or *d*.

$$a(x) = 6x + 3$$

$$b(x) = -3 - \frac{4}{3}x$$

$$c(x) = (x+1)^2 - 3$$

$$d(x) = 3 \cdot 2^x$$



Functions 4 – Determining the most suitable representation

1) John-Jon Johnson, a student at Georgetown Junior College, needed to create and carry out an experiment for his biology class. While eating his Hot Pocket, what he calls the “Breakfast of Champions,” the experiment came to him! He decided to measure the temperature of his Hot Pocket as a function of time. This low-tech experiment involved a Hot Pocket, a GE microwave, a cooking thermometer (a really good one from Wal-Mart), and a red stopwatch. The experiment was simple: He heated the Hot Pocket in the microwave to an initial temperature of 200 degrees and then measured the temperature as it cooled.

The data from JJ’s experiment is provided in the table at the right. Here, time t is measured in minutes, with $t = 0$ representing the moment JJ took the Hot Pocket out of the microwave, and temperature T is measured in degrees Fahrenheit.

t	$T(t)$
0	200.00
3	106.78
5	89.85
7	83.62
10	80.81
12	80.30

1. Estimate the temperature of the Hot Pocket at 1.5 minutes.

$T(1.5) = \underline{\hspace{2cm}}$

2. Explain how you arrived at your estimate above.

3. Sketch a graph for function T using JJ’s table of values. Label each axis. Connect your points with a smooth curve.

4. Estimate the temperature of the Hot Pocket again at 1.5 minutes, this time **using the graph for your estimate**. Add a “•” on your graph showing the location of this estimate.

$T(1.5) = \underline{\hspace{2cm}}$

