

BUTCHER- TECHNICAL MATH B –1ST PERIOD – OFF-SITE LEARNING PACKET DAY 2

Instructor: Nancy Butcher

Date: Day 2

Program/Class: Tech Math B

Period: 1,2,3

State Indicator/Competency:

- Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).
- Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).

Instructional Objective(s):

- Students will graph linear functions in $y=mx+b$ format by recognizing that m is slope and b is the intercept of the y -axis with 80% accuracy

Materials:

- Pencil, straight edge, Packet 2

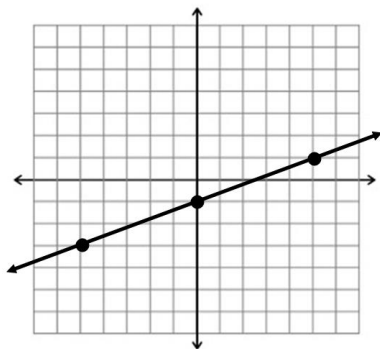
Method of Instruction:

- Independent

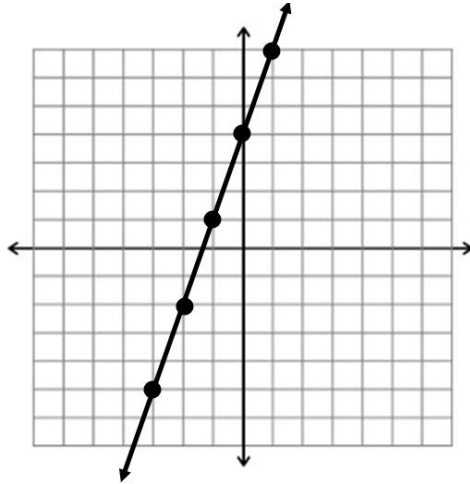
Activities:

Complete Packet 2 Worksheet

- Example 1: Graph $y = \frac{2}{5}x - 1$
 - When $y = mx+b$: m is the slope and b is the y intercept.
 - $m = \frac{2}{5}$ and $b = -1$
 - First find a point on the y axis which corresponds with b and plot.
In this example: $(0, -1)$
 - The slope is $\frac{2}{5}$ which is $\frac{\text{rise}}{\text{run}}$ meaning you move up the y axis 2 spaces in the positive direction and “run” on the x axis 5 spaces in the positive direction resulting in the following graph:



- Example 2: Graph $y=3x+4$
 $m = 3$ and $b = 4$
First plot $(0,4)$ and then plot a second point using the slope $\frac{3}{1}$



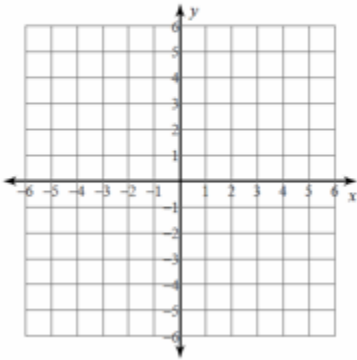
Assessment:

Packet 2: 10 pts

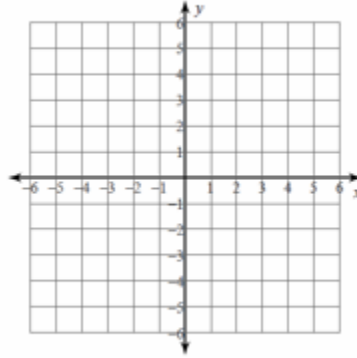
Name: _____

Sketch the graph of each line.

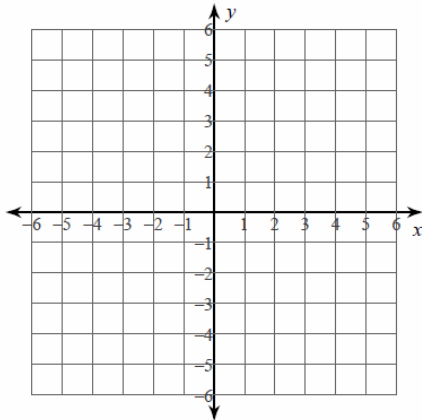
1) $y = \frac{7}{2}x - 2$



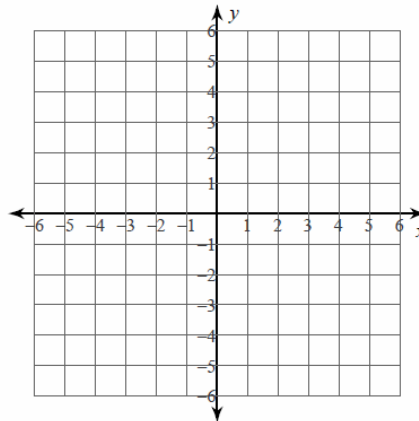
2) $y = -6x + 3$



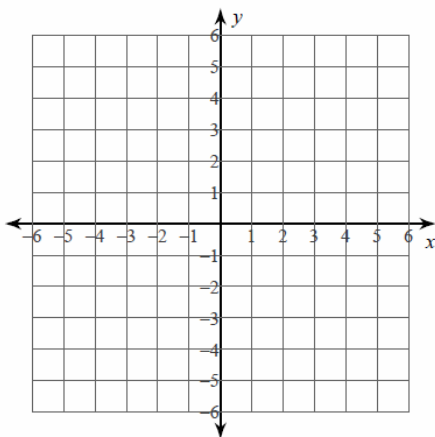
3) $y = -5$



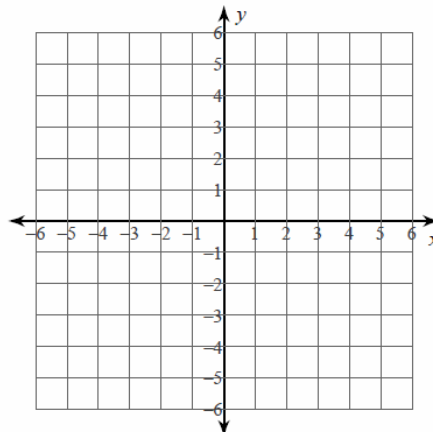
4) $y = \frac{6}{5}x + 1$



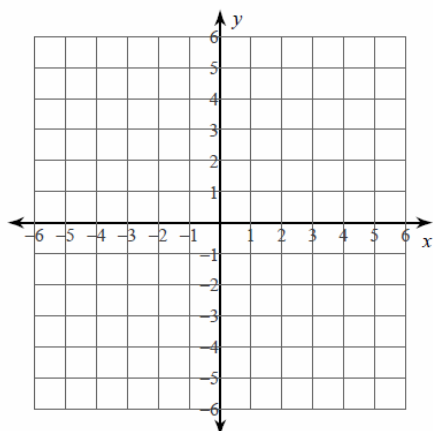
5) $y = \frac{1}{4}x + 2$



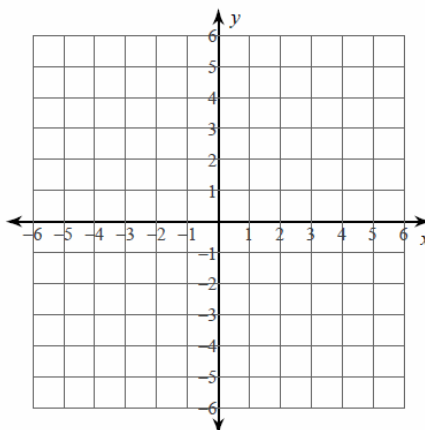
6) $x = 5$



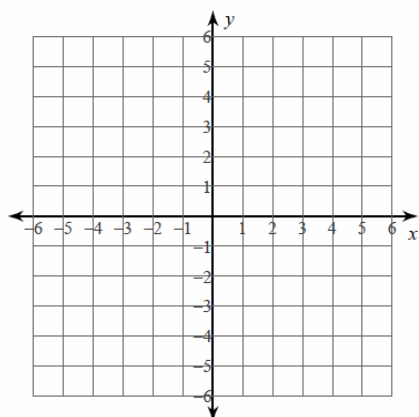
7) $y = \frac{5}{3}x$



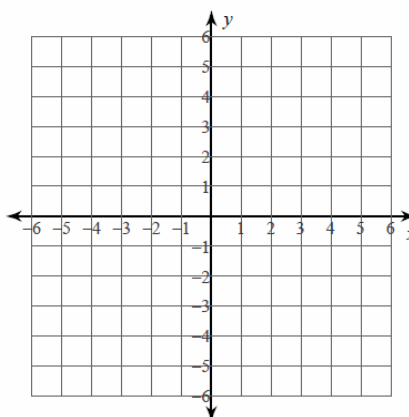
8) $x = 0$



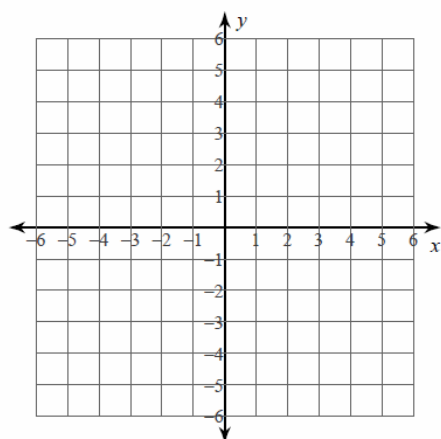
9) $y = -\frac{1}{3}x + 3$



10) $y = \frac{1}{5}x - 4$



11) $y = \frac{1}{2}x - 2$



12) $y = 2x + 5$

