Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_

* 1. and 1.2 Practice:

**Explain whether the variables in the table are linearly related:**

|  |  |
| --- | --- |
| x | y |
| -3 | -11 |
| -1 | -7 |
| 1 | -3 |
| 3 | 1 |
| 5 | 5 |

|  |  |
| --- | --- |
| x | y |
| -5 | 9 |
| -4 | 8 |
| -3 | 6 |
| -2 | 3 |
| -1 | -1 |

1. 2.

3. A city community college plans to increase its enrolment capacity to keep up with population growth. The college has an enrollment of 2200 students and plans to increase the enrollment by 70 students each year.

a) Make a table of values. Let *y* represent the number of years, and let *t* represent the total number of students.

b) Write a linear equation that could be used to find the total enrollment capacity after *y* number of years.

c) Graph the equation you wrote for part (b)

**Name the slope, m, and the y-intercept, b, of each line:**

4. $y=-\frac{1}{2}x-4$ 5. x = 2

**Find the slope of a line passing through the indicated points, and write an equation of the line in slope-intercept form.**

6. (1, -3) and (3, -5) 7. (-6, -6) and (-3, 1)