### Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Writing Linear Equations from Context**

|  |  |
| --- | --- |
| **Slope – Intercept Form:** | **m:** |
| **b:** |

1. a. Suppose you receive $100 as a birthday present. Your parents make you deposit into a savings account, and promise that each week thereafter they will add $5 to the account. Write an equation in slope- intercept form to model this scenario.



 b. Identify the variables in this situation:

 c. Create a Table and Graph:

|  |  |
| --- | --- |
| **x** | **y** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. a. Dr. Nelson has 50 Pre – Med Society t-shirts. She gives out 4 t-shirts a day. Write an equation in slope- intercept form to model this scenario.



b. Identify the variables in this situation:

 c. Create a Table and Graph:

|  |  |
| --- | --- |
| **x** | **y** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

 d. On day 7, how many t-shirts will Dr. Nelson have left?

1. a. At Bowlerena Bowling Alley, it costs $2.00 per game and $4.00 for a shoe rental. Write an equation in slope – intercept form to model this scenario.



 b. Identify the variables in this situation:

 c. Create a Table and Graph:

|  |  |
| --- | --- |
| **x** | **y** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

 c. If you plan on bowling 4 games, what will it cost you?

 d. If you bowl 9 games what will it cost you?

 e. If you only have $10, how many games can you bowl? Will you have money left over?

 f. If you have $25, how many games can you bowl? Will you have money left over?

**Review**

1. Solve **A = nz +d** for **z**.
2. 
3. 
4. 
5. 
6. Solve **3x – 6y = 30** for **y**.
7. 
8. 
9. 
10. 
11. Identify the slope and y- intercept of **y = 5x – 9.**
12. slope: 5 , y-intercept: 9
13. slope: 1/5 , y-intercept: 9
14. slope: 5, y-intercept: -9
15. slope: 1/5, y-intercept: -9