Slope-Intercept Form Word Problems

Name: _____ Date: _____

1. In order to join a dancing club, there is a $30 startup fee and a $4 monthly fee. Write an equation in slope-intercept form that models this situation.

2. In order to join an online learning community, there is a $20 startup fee and a $5 monthly fee. Write an equation in slope-intercept form that models this situation.

3. In order to become a member of the library-all-star-members club, there is a $40 sign-up fee and a $2 monthly fee. Write an equation in slope-intercept form that models this situation.

4. Use equation you wrote in problem 3 to find the total cost of being an all-star library member for 19 months.

5. The U.S. Bureau of the Census predicted that the population of Florida would be about 17.4 million in 2010 and then would increase by about 0.22 million per year until 2015. Which of the following linear models predicts the population, **y**, of Florida (in millions) in terms of **x**, the number of years since 2010.

A. $y = 17.4x + 0.22$
B. $y = -0.22x + 17.4$
C. $y = 0.22x + 17.4$
D. $y = -17.4x + 0.22$

6. Suppose that a bike rents for $4 plus $1.50 per hour. Write an equation in slope-intercept form that models this situation.

7. Use the equation you wrote in problem 6 to complete the table.

Hours (x)	2	4	6	8
Total Cost (y)				

LIVEWORKSHEETS

8. In order to join a yoga club there is a $100 annual fee and a $5 fee for each class you attend. Write an equation in slope-intercept form that models this situation.

9. Cameron is designing a calendar as a fund-raising project for math class. The cost of printing is $500, plus $2.50 per calendar. Write an equation in slope-intercept form that models the total cost of printing the calendars.

10. Each calendar will sell for $5.00 each. Write an equation to model the total ***income, y***, for selling ***x calendars***.

11. Cameron estimates that the math class will sell 200 calendars. What will the **total cost** be?

12. Cameron estimates that the math class will sell 200 calendars. What will the **total income** be?

13. Determine how effective the fundraising project will be. Will there be a profit or a loss? If so, how much?

14. When visiting Baltimore, MD, you need to rent a taxi to get from your hotel to the National Aquarium. The taxi company charges a flat fee of $3.00 for using the taxi and $0.75 per mile. Write an equation in slope-intercept form that models this situation.

15. Use your equation from problem 14 to calculate the cost for using the taxi for 18 miles.

16. An airplane 30,000 feet above the ground begins descending at a rate of 2,000 feet per minute. **Write an equation** to model the situation. Find the altitude of the plane after **5 minutes**.

LIVEWORKSHEETS