

Wisdom Lane Middle School
Name: _____
Teacher: Mr. Tomeo

Homework #52

Date: _____
Period: _____

Slope-Intercept Word Problems

$$(y = mx + b)$$

Create a linear formula in *slope-intercept form* for each of the problems to answer the questions.

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.

Use the equation you wrote to find the total cost of being in the dancing club for 10 months.

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2. In order to join an online learning community, there is a \$20 startup fee and a \$5 monthly fee.

Write a linear equation in slope-intercept form that models this situation.

Use the equation you wrote to find the total cost of being a member for 6 months.

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3. An airplane 30,000 feet above the ground begins descending at a rate of 2,000 feet per minute.

Write a linear equation in slope-intercept form to model the situation.

Find the altitude of the plane after 5 minutes.

4. 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.

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

How many calendars have to be sold to earn \$1000?

5. You are visiting Baltimore, MD and a taxi company charges a flat fee of \$3.00 for using the taxi and \$0.75 per mile.

Write an equation that you could use to find the cost of the taxi ride in Baltimore, MD. Let x represent the number of miles and y represent the total cost.

How much would a taxi ride for 8 miles cost?

If a taxi ride cost \$15, how many miles did the taxi travel?

6. A plumber charges \$50 to make a house call. He also charges \$25.00 per hour for labor.

Write an equation that you could use to the amount a plumber charges for a house call based on the number of hours of labor.

How much would it cost for a house call that requires 2.5 hours of labor?

If the bill from the plumber is \$162.50, how many hours did the plumber work at your house?