

LINEAR WORD PROBLEMS IN SLOPE INTERCEPT FORM $y = mx + b$

1. 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.
 - A. 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.

 - B. How much would a taxi ride for 8 miles cost?

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

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

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

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

3. An airplane 30,000 feet above the ground begins descending at the rate of 2000 feet per minute. Assume the plane continues at the same rate of descent. The plane's height and minutes above the ground are related to each other.
 - A. Write an equation to model the situation.

 - B. Find the altitude of the plane after 5 minutes.

4. A hot air balloon cruising at 1000 feet above the ground begins to ascend at a rate of 200 feet per minute. Assume the hot air balloon continues at the same rate of descent. The hot air balloon's height and minutes above the ground are related to each other.
 - A. Write an equation to model the situation.

 - B. Find the altitude of the hot air balloon after 8 minutes.