

3. Sam is on a diet. He currently weighs 270 pounds. He loses 4 pounds per month.

a.) Write a linear model that represents Mr. Thompson's weight after x months.

b.) After how many months will Mr. Thompson reach his goal weight of 200 pounds?

4. Sam has \$28,000 in his bank account. Every month he spends \$1,200. He does not add money to the account.

a.) Write a linear model that shows how much money will be in the account after x months.

b.) How much money will he have in his account after 8 months?

5. Suppose a 5-minute overseas call costs \$4.91 and a 10-minute call costs \$10.86.

a.) Write a linear model of this situation.

b.) How long can you talk on the phone if you have \$15 to spend?

6. Biologists have found that the number of chirps some crickets make per minute is related to temperature. The relationship is very close to being linear. When crickets chirp 124 times per minute, it is about 68 degrees Fahrenheit. When they chirp 172 times per minute, it is about 80 degrees Fahrenheit.

a.) Write a linear model of this situation.

b.) How warm is it when the crickets are chirping 150 times per minute?