

Name: _____

Date: _____

CHAPTER
3

Equating a Workout Plan

1. Mary burns 35 calories when she rides her bicycle to the park. After riding, she burns 9.5 calories per minute while running.
 - a) Write a linear equation for the total amount of calories, C , that Mary will burn if she cycles to the park and runs m minutes.

- b) Complete the table to show the total amount of calories Mary will burn for cycling and running for 0, 10, 15, and 30 minutes. Show and explain your work.

Minutes (m)	Total Calories Burned (C)
0	
10	

c) Can you triple the calories burned after 10 minutes of exercise to find the calories burned for 30 minutes of exercise? Justify your reasoning.

d) Mary's friend writes an equation to express the amount of time, m , in terms of calories, C , burned. Is her equation, $m = 35 + \frac{C}{9.5}$ correct? Justify your reasoning. Show your work.

2. Mary decides not to run in the park. Instead, she will ride her bicycle in the park. If cycling burns 7 calories per minute, write a linear equation that shows how many calories, C , she burns in m minutes. How many minutes would she have to cycle to burn 322 calories?