55. **MULTIPLE REPRESENTATIONS** You tutor Spanish for $15 per hour and French for $10 per hour. You want to earn at least $100 per week.

a. Writing an Inequality Write an inequality that describes your goal in terms of hours spent tutoring Spanish and hours spent tutoring French.

b. Drawing a Graph Graph the inequality. Then give three possible combinations of hours that meet your goal.

c. Making a Table Make a table that gives the amount of money that you will earn for each combination of hours given in part (b).

56. **TAKS REASONING** To compete in a piano competition, you need to perform two musical pieces whose combined duration is no greater than 15 minutes. Which inequality describes the possible durations x and y (in minutes) of the pieces?

Ⓐ $x + y < 15$ Ⓑ $x + y \leq 15$ Ⓒ $x + y > 15$ Ⓓ $x + y \geq 15$

57. **MULTI-STEP PROBLEM** You are making muffins and loaves of bread for a bake sale. You need $\frac{1}{6}$ batch of batter per muffin and $\frac{1}{2}$ batch of batter per loaf of bread. You have enough ingredients to make up to 12 batches of batter.

a. Write and graph an inequality that describes the possible combinations of muffins m and loaves ℓ of bread that you can make.

b. You make 4 loaves of bread. What are the possible numbers of muffins that you can make?

58. **NUTRITION** A nutritionist recommends that the fat calories y consumed per day should be at most 30% of the total calories x consumed per day.

a. Write and graph an inequality that relates the number of fat calories consumed to the total calories consumed.

b. Use the nutrition labels below. You normally consume 2000 calories per day. So far today you have eaten 6 crackers and 1 container of yogurt. What are the possible additional fat calories that you can consume today?

59. **TAKS REASONING** You need to bring a duffel and a bedroll for a trip in the mountains. The sum of the weight x (in pounds) of the duffel and the weight y (in pounds) of the bedroll cannot exceed 30 pounds.

a. Graph and Apply Write and graph a linear inequality that describes the possible weights of the duffel and bedroll. Then give three possible combinations of weights of the duffel and bedroll.

b. Interpret Are (0, 30) and (30, 0) solutions of the inequality in part (a)? Do these ordered pairs make sense for this situation? *Explain*.