Name: _____ Date: _____

BLM 5–6

Section 5.1 Math Link

This worksheet will help you with the Math Link on page 182.

1. You want to be a contestant on a game show. In order to get on the show, you must show how to spend exactly $100 by choosing from the items listed below. You may purchase some or all of the six items, and as many of a single item as necessary.

blender	$23	soccer ball	$13	stopwatch	$17
drum	$40	book	$8	coffeemaker	$27

Complete the tables to show possible purchase combinations.

a)

Item	Cost per Item	Number of Items	Total
blender	$23		$46
coffeemaker	$27		
		Total	$100

b)

Item	Cost per Item	Number of Items	Total
soccer ball	$13		
drum	$40	1	$40
books	$8		
		Total	$100

2. Two other possible purchase combinations are

- 4 stopwatches and 4 books
- 1 coffeemaker, 1 blender, 2 stopwatches, and 2 books

a) Verify that each purchase combination equals $100.

b) Using the variables r = blender, w = stopwatch, c = coffeemaker, and b = book, write a polynomial expression for each purchase combination.

3. Find two other possible purchase combinations.

4. Adding the variables d = drum and s = soccer ball, write polynomial expressions for the purchase combinations in #1a) and b).

5. Complete this statement.

1 soccer ball + 1 blender + 1 stopwatch + 1 book + 1 drum +

1 coffeemaker = _____ + _____+ _____ + _____+ _____ + _____ = _____

6. Can you make a purchase combination using all of the items that adds to $100? Explain.