

# Lesson 10: The Structure of Ratio Tables—Additive and Multiplicative

## Classwork

### Exploratory Challenge

Imagine that you are making a fruit salad. For every quart of blueberries you add, you would like to put in 3 quarts of strawberries. Create three ratio tables that show the amounts of blueberries and strawberries you would use if you needed to make fruit salad for greater numbers of people.

Table 1 should contain amounts where you have added fewer than 10 quarts of blueberries to the salad.

Table 2 should contain amounts of blueberries between 10 and 50 quarts.

Table 3 should contain amounts of blueberries greater than 100 quarts.

Table 1	
Quarts of Blueberries	Quarts of Strawberries

Table 2	
Quarts of Blueberries	Quarts of Strawberries

Table 3	
Quarts of Blueberries	Quarts of Strawberries

- a. Describe any patterns you see in the tables. Be specific in your descriptions.
- b. How are the amounts of blueberries and strawberries related to each other?
- c. How are the values in the blueberries column related to each other?
- d. How are the values in the strawberries column related to each other?
- e. If we know we want to add 7 quarts of blueberries to the fruit salad in Table 1, how can we use the table to help us determine how many strawberries to add?

- f. If we know we used 70 quarts of blueberries to make our salad, how can we use a ratio table to find out how many quarts of strawberries were used?

**Exercise 1**

The following tables were made incorrectly. Find the mistakes that were made, create the correct ratio table, and state the ratio that was used to make the correct ratio table.

a.

Hours	Pay in Dollars
3	24
5	40
7	52
9	72

Hours	Pay in Dollars

Ratio \_\_\_\_\_

b.

Blue	Yellow
1	5
4	8
7	13
10	16

Blue	Yellow

Ratio \_\_\_\_\_