Name _____ Date _____

Ratio Tables and Equivalent Ratios: Smoothie Batches and Paint Mixes

Directions: Each table shows equivalent ratios: the same ratio at different sizes. To make another equivalent ratio, multiply or divide both numbers of a ratio by the same number greater than 0. Type each number answer with digits.

The smoothie table

Every row of this table is a batch of the same smoothie recipe, so the rows are equivalent ratios. The letters A and B stand for two missing numbers.

Batches of one berry smoothie recipe

Cups of berries	Cups of yogurt
2	3
4	6
6	A
10	15
B	30

1. What number does A stand for in the smoothie table?

_____ cups of yogurt

2. The last row of the smoothie table has 30 cups of yogurt. How many cups of berries does B stand for?

_____ cups of berries

3. Two students add a new row to the smoothie table for a batch with 8 cups of berries.

• Hoang writes 9 cups of yogurt, because the first row has 1 more cup of yogurt than berries.
• Ingrid writes 12 cups of yogurt, because 8 is 4 times 2, and 4 times 3 is 12.

Whose new row belongs in the table, and why?

A. Hoang's, because every row has exactly 1 more cup of yogurt than berries.

B. Both, because 8 to 9 and 8 to 12 are equivalent ratios.

C. Neither, because 8 cups of berries need 11 cups of yogurt.

D. Ingrid's, because multiplying both numbers of a row by 4 gives an equivalent ratio.

4. Each row of the smoothie table can be written as an ordered pair, with the cups of berries first and the cups of yogurt second. The first row is (2, 3). Which ordered pair fits the same recipe?

A. (12, 18) B. (12, 13) C. (12, 17) D. (18, 12)

The paint table

Each paint mix has its own two columns in this table. The three rows for one mix are equivalent ratios of blue paint to yellow paint.

Cups of blue and yellow paint in two green paint mixes

Spring Green: blue	Spring Green: yellow	Forest Green: blue	Forest Green: yellow
2	5	3	7
4	10	6	14
6	15	9	21

5. A painter makes Spring Green with 10 cups of blue paint. How many cups of yellow paint does the painter need?

_____ cups of yellow paint

6. Each mix has a row with 6 cups of blue paint. Use those two rows to compare the mixes. Which mix uses more yellow paint for the same amount of blue paint?

A. Forest Green, because its last row has the most yellow paint in the table.

B. Spring Green, because with 6 cups of blue it uses 15 cups of yellow, and Forest Green uses 14.

C. Neither, because both mixes use the same amount of yellow with 6 cups of blue.

D. Forest Green, because its first row has 7 cups of yellow and Spring Green's has only 5.

7. Which ratios of blue paint to yellow paint could be new rows for Forest Green? Select the two that are equivalent to 3:7.

☐ A. 7:3 ☐ B. 5:9 ☐ C. 15:35

☐ D. 6:10 ☐ E. 12:28

8. A painter makes each mix with 70 cups of yellow paint. How many more cups of blue paint does Forest Green use than Spring Green?

_____ cups of blue paint