Grade 6 · Unit 2 Worksheet

Introducing Ratios

Name: _____ Date: _____

Part A · Ratio Language

Write ratios in multiple ways. Pay attention to what each number means.

1. A fruit bowl contains 8 apples and 12 oranges.

a. Write the ratio of apples to oranges three different ways:

b. Write the ratio of oranges to fruit (all pieces):

c. What fraction of the fruit are apples? _____

d. Is the ratio of apples to oranges the same as the ratio of oranges to apples? Explain.

Part B · Equivalent Ratios

2. A drink recipe uses 3 cups of juice for every 2 cups of soda water.

a. How much juice would you need for 10 cups of soda water? _____

b. Show your reasoning with a table OR a double number line:

c. If you have 15 cups of juice, how much soda water? _____

3. Two paint mixtures: Mix A is 4 cups blue and 6 cups yellow. Mix B is 6 cups blue and 9 cups yellow.

Will Mix A and Mix B be the same shade of green? Show your reasoning.

What about Mix C with 3 cups blue and 5 cups yellow? Same shade? Why?

Part C • Tables and Double Number Lines

4. A car travels at a constant speed and covers 150 miles in 3 hours.

a. How far does it travel in 1 hour? _____ mi

b. Fill in the table:

Hours	Miles
1	_____
3	150
5	_____
8	_____

How did you choose what to multiply by to fill in each row?

Part D • Part-Part-Whole Ratios

5. A trail mix recipe uses 5 parts peanuts to 3 parts raisins. You want to make 40 cups of trail mix.

a. How many cups of peanuts? _____

b. How many cups of raisins? _____

c. Show your reasoning (try a tape diagram!):

Part E · Error Analysis & Reasoning

6. Mai says: 'The ratio 6:8 is equivalent to 7:9 because you add 1 to each side.' Is Mai correct?

☐ Yes ☐ No

Explain why adding the same number to both parts of a ratio does NOT preserve equivalence:

7. A class has a boy-to-girl ratio of 3 to 5. There are 24 students total. Han says there must be 9 boys and 15 girls. Diego says it could also be 8 boys and 16 girls because 8+16=24.

Who is right? Explain.

8. Show two different ways to determine whether 9:12 and 15:20 are equivalent ratios. Which way did you find more efficient and why?

Way 1:

Way 2:

Which was more efficient and why?

Part F · Thinking Deeply

9. A recipe for 4 muffins uses 1 cup of flour and 1/2 cup of sugar. Write the ratios needed to make 18 muffins.

Cups of flour: _____

Cups of sugar: _____

Show your reasoning:

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10. Write your OWN story problem that can be solved using the ratio 4:7. Include a question that requires finding an equivalent ratio.
