

Unit 2: Introducing Ratios

ADVANCED · SET 2

Name: _____

Date: _____

Solve each problem and give your answer in the exact form requested (a number, fraction, or ratio in lowest terms).

1. A recipe uses flour and sugar in the ratio 15 : 6. Write this ratio in simplest form.

Answer: _____

3. On a double number line, 3 kg of apples costs \$7.50. Using equivalent ratios, how much do 8 kg of apples cost, in dollars?

Answer: _____

5. In a class the ratio of boys to girls is 5 : 4. There are 20 girls. How many students are in the class in total?

Answer: _____

7. A tape diagram shows red to green tiles in the ratio 7 : 9. Altogether there are 96 tiles. How many green tiles are there?

Answer: _____

9. Machine A produces 18 parts every 4 minutes. At this rate, how many parts does it produce in 30 minutes?

Answer: _____

11. A recipe for 6 servings uses 8 tablespoons of butter. How many tablespoons are needed for 15 servings?

Answer: _____

2. A paint mix uses blue and yellow in the ratio 4 : 7. If you use 28 cups of blue paint, how many cups of yellow paint are needed to keep the same ratio?

Answer: _____

4. A car travels 245 km on 35 liters of fuel. At this rate, how many kilometers does it travel on 12 liters?

Answer: _____

6. Two ratios are equivalent: 12 : 30 and 18 : n. Find the value of n.

Answer: _____

8. A juice blend mixes water and concentrate in the ratio 9 : 4. To make 78 liters of blend, how many liters of concentrate are needed?

Answer: _____

10. The ratio $\frac{2}{3} : \frac{5}{6}$ can be written as a ratio of whole numbers in simplest form. Write it as a:b.

Answer: _____

12. Sand and cement are mixed in the ratio 11 : 3. A builder has 33 kg of cement and plenty of sand. What is the maximum total mass, in kg, of mix that can be made using all the cement?

Answer: _____