Solving Ratio Problems

ANSWER KEY • Amplify Alignment: Grade 6 Accelerated, Unit 2, Lesson 10

1. Determine the missing number in the ratio table.

Number of Forks	Number of Cups
5	8
30	**48**

2. A recipe uses 3 pounds of pasta and $2\frac{1}{2}$ cups of sauce. Owen makes 4 batches. How much of each ingredient does he need?

A 7 pounds of pasta, 10 cups of sauce

B 12 pounds of pasta, $8\frac{1}{2}$ cups of sauce

C 12 pounds of pasta, 10 cups of sauce

D 7 pounds of pasta, $6\frac{1}{2}$ cups of sauce

3. A store sells 5 pounds of rice for $6.25. Which ratios correctly represent the price of the rice? Select all that apply.

- ☑ **A.** 1 pound to $1.25
- ☑ **B.** 10 pounds to $12.50
- ☐ **C.** 3 pounds to $3.25
- ☑ **D.** 8 pounds to $10.00
- ☐ **E.** 20 pounds to $24.00

4. A horse drinks about 280 liters of water each week. Complete each ratio.

a **40** liters to 1 day

b 200 liters to **5** days

c **560** liters to 2 weeks

d 1,000 liters to **25** days

e **2,800** liters to 10 weeks

5. A chef needs 30 pounds of apples. Apples cost $9 for 4 pounds.

a Write a ratio for the price of apples per pound. **$2.25 : 1 pound**

b At this price, how much will the chef pay for 30 pounds? Explain your thinking.

$67.50. Each pound costs $2.25, and 30 × $2.25 = $67.50.

6. A bakery sells 6 muffins for $7.50. A school needs 100 muffins.

a Write a ratio to describe the cost of the muffins. **6 muffins : $7.50 (or 1 : $1.25)**

b At the same price, how much will the school pay for 100 muffins? Explain your thinking.

$125. Each muffin costs $7.50 ÷ 6 = $1.25, and 100 × $1.25 = $125.

7. Orange paint is made by mixing 5 milliliters of red paint with 2 milliliters of yellow paint. Pia has 35 milliliters of red and 20 milliliters of yellow. If she uses all the red paint, how much yellow paint will be left? Use the ratio table if it helps.

Red (mL)	Yellow (mL)
5	2
35	**14**

6 mL left. 35 mL of red is 7 batches (5 × 7), which needs 2 × 7 = 14 mL of yellow. 20 − 14 = 6.

8. Omar is reading a 120-page book. He read the first 45 pages in 30 minutes. At the same rate, can he finish the whole book in less than 1 hour? Show or explain your thinking.

No. At this rate he reads 90 pages in 60 minutes, which is less than 120 pages. (He needs 80 minutes for the whole book.)