

Lesson 3-7 • Apply Day

Reinforce Understanding

Multi-Step System Conversions & Dosage

I can use ratio reasoning to convert measurements between the customary and metric systems.

Worked model

A dog weighs 66 pounds. The medicine dose is 4 mg for every 1 kg. (1 kg $\approx$ 2.2 lbs)

- 1.
2. — convert to the unit the rate uses. $66 \div 2.2 = 30$ kg
3. Do NOT skip to the dose — the rate is per KILOGRAM, not per pound.
- 4.
5. — apply the rate. $30 \times 4 = 120$
6. Label the answer with its unit. 120 mg

Answer: The dog needs a 120 mg dose.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. (Lesson 3.5) Compare gold tiles per blue tile for 2:3 and 3:5. Which ratio gives fewer gold tiles per blue tile? Type first or second.

Complete each step, then write the final answer.

1. First rate — gold per blue: $3 \div 2 = \underline{\hspace{1cm}}$.
2. Second rate — gold per blue: $5 \div 3 = \underline{\hspace{1cm}}$.
3. The smaller rate belongs to the $\underline{\hspace{1cm}}$ ratio (type first or second).

Answer: _____

2. (Lesson 3.5) Compare gold tiles per blue tile for 3:5 and 4:7. Which ratio gives fewer gold tiles per blue tile? Type first or second.

Complete each step, then write the final answer.

1. First rate — gold per blue: $5 \div 3 = \underline{\hspace{1cm}}$.
2. Second rate — gold per blue: $7 \div 4 = \underline{\hspace{1cm}}$.
3. The smaller rate belongs to the $\underline{\hspace{1cm}}$ ratio (type first or second).

Answer: _____

3. (Lesson 3.5) Compare gold tiles per blue tile for 4:7 and 5:9. Which ratio gives fewer gold tiles per blue tile? Type first or second.

Complete each step, then write the final answer.

1. First rate — gold per blue: $7 \div 4 = \underline{\hspace{1cm}}$.
2. Second rate — gold per blue: $9 \div 5 = \underline{\hspace{1cm}}$.
3. The smaller rate belongs to the $\underline{\hspace{1cm}}$ ratio (type first or second).

Answer: _____