

# CCBMA MATH AND DOSAGE CALCULATIONS PRACTICE TEST (SAMPLE) STUDY GUIDE



## SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

<https://ccbmamathdosagecalc.examzify.com>



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# Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

# How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

## 1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

## 2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

## 3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

## 4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

## 5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

## 6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

## Questions

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**1. Which abbreviation stands for Teaspoon?**

- A. T or tbsp
- B. 1cc
- C. mL
- D. tsp

**2. How many milliliters are in 1 teaspoon?**

- A. 2 mL
- B. 10 mL
- C. 5 mL
- D. 15 mL

**3. If a patient's maximum recommended dose is 45 mL, how many tablespoons does that correspond to?**

- A. 5 tbsp
- B. 3 tbsp
- C. 6 tbsp
- D. 9 tbsp

**4. Which unit is used to measure length in the metric system?**

- A. Gram
- B. Liter
- C. Meter
- D. Pound

**5. Which abbreviation represents the gram?**

- A. kg
- B. g, gm
- C. L
- D. mg

**6. A microliter is \_\_\_\_\_ of a milliliter.**

- A. 1/100
- B. 1/10
- C. 1/1000
- D. 1/1000000

7. A pediatric dose of ceftriaxone is 100 mg/kg/day. The patient weighs 47 pounds. What is the daily dose in milligrams?
- A. 2125 mg
  - B. 2100 mg
  - C. 2300 mg
  - D. 2000 mg
8. The patient has nausea and vomiting. The provider orders 35 mg of Vistaril PO. The supply on hand is 25 mg/5 mL. Which is the correct dose?
- A. 7 mL
  - B. 5 mL
  - C. 6 mL
  - D. 8 mL
9. If a medication dose requires 25 mg and the stock concentration is 50 mg/mL, how many milliliters are needed?
- A. 0.5 mL
  - B. 0.25 mL
  - C. 1 mL
  - D. 2 mL
10. What is 218 pounds in kilograms?
- A. 44.4 kg
  - B. 62.1 kg
  - C. 98.8 kg
  - D. 157.3 kg

## **Answers**

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1. D
2. C
3. B
4. C
5. B
6. C
7. A
8. A
9. A
10. C

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## **Explanations**

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## 1. Which abbreviation stands for Teaspoon?

- A. T or tbsp
- B. 1cc
- C. mL
- D. tsp**

Knowing how measurement abbreviations are used helps prevent dosing mistakes. The shorthand for a teaspoon is *tsp*, a clear and widely accepted symbol that uniquely identifies that small volume. This stands out because the other common abbreviations point to different things: T or *tbsp* is typically associated with tablespoon (the larger measure), while *mL* refers to milliliters and *cc* to cubic centimeters, neither of which is a teaspoon. Remembering that 1 teaspoon is about 5 mL and that 1 tablespoon is about 15 mL helps keep conversions straight and reduces errors. So, *tsp* is the appropriate abbreviation for a teaspoon.

## 2. How many milliliters are in 1 teaspoon?

- A. 2 mL
- B. 10 mL
- C. 5 mL**
- D. 15 mL

A teaspoon is defined as 5 milliliters in metric dosing. So, 1 teaspoon equals 5 mL, and this is the standard conversion used in medicines and recipes. Since 1 tablespoon equals 15 mL, that means it's three teaspoons. Therefore, the correct amount for 1 teaspoon is 5 mL. The other options would correspond to smaller or larger measures: 2 mL is too small, 10 mL is two teaspoons, and 15 mL is a tablespoon.

## 3. If a patient's maximum recommended dose is 45 mL, how many tablespoons does that correspond to?

- A. 5 tbsp
- B. 3 tbsp**
- C. 6 tbsp
- D. 9 tbsp

Knowing that 1 tablespoon equals 15 milliliters makes this straightforward. To find how many tablespoons match 45 mL, divide 45 by 15.  $45 \div 15 = 3$ , so 45 mL corresponds to 3 tablespoons. The other options would correspond to larger volumes: 5 tablespoons is 75 mL, 6 tablespoons is 90 mL, and 9 tablespoons is 135 mL, all exceeding the 45 mL maximum.

## 4. Which unit is used to measure length in the metric system?

- A. Gram
- B. Liter
- C. Meter**
- D. Pound

Length in the metric system is measured in meters. The meter is the standard unit for distance along a line, while gram measures mass and liter measures volume. Pound is an imperial unit used for weight. Someters are the unit used to measure length.

**5. Which abbreviation represents the gram?**

- A. kg
- B. g, gm**
- C. L
- D. mg

Mass is measured in grams in the metric system, and the standard abbreviation for a gram is g. In some contexts you'll also see gm used as an informal or older spelling, so both g and gm denote the gram. The other units shown represent different quantities: kilogram (kg) is 1000 grams, liter (L) is a unit of volume, and milligram (mg) is 1/1000 of a gram. So the abbreviation that represents the gram—and commonly used forms of it—are g and gm.

**6. A microliter is \_\_\_\_\_ of a milliliter.**

- A. 1/100
- B. 1/10
- C. 1/1000**
- D. 1/1000000

Metric prefixes show scale: micro means one millionth and milli means one thousandth. A microliter is one millionth of a liter, while a milliliter is one thousandth of a liter. When you compare them, a microliter is a thousand times smaller than a milliliter, so it is 1/1000 of a milliliter (0.001 mL). Practically, 1 mL equals 1000  $\mu$ L, so 1  $\mu$ L equals 0.001 mL.

**7. A pediatric dose of ceftriaxone is 100 mg/kg/day. The patient weighs 47 pounds. What is the daily dose in milligrams?**

- A. 2125 mg**
- B. 2100 mg
- C. 2300 mg
- D. 2000 mg

Converting weight to the correct unit and applying the per-kilogram dose is the key. Start with 47 pounds and convert to kilograms using  $1 \text{ kg} \approx 2.2 \text{ pounds}$ :  $47 \div 2.2 \approx 21.36 \text{ kg}$ . Multiply by the daily dose per kilogram:  $21.36 \text{ kg} \times 100 \text{ mg/kg/day} \approx 2136 \text{ mg/day}$ . Among the given options, the value closest to this calculated amount is 2125 mg, which is why that choice is selected. In practice you'd round based on available strengths, but the method and the calculation lead to the  $\sim 2136 \text{ mg/day}$  result, with 2125 mg being the closest match.

8. The patient has nausea and vomiting. The provider orders 35 mg of Vistaril PO. The supply on hand is 25 mg/5 mL. Which is the correct dose?

- A. 7 mL
- B. 5 mL
- C. 6 mL
- D. 8 mL

Convert the prescribed dose to milliliters using the given concentration. The solution is 25 mg/5 mL, which is 5 mg per 1 mL. To get 35 mg, calculate  $35 \text{ mg} \div (5 \text{ mg/mL}) = 7 \text{ mL}$ . Verification:  $7 \text{ mL} \times 5 \text{ mg/mL} = 35 \text{ mg}$ . So the correct volume to administer is 7 mL.

9. If a medication dose requires 25 mg and the stock concentration is 50 mg/mL, how many milliliters are needed?

- A. 0.5 mL
- B. 0.25 mL
- C. 1 mL
- D. 2 mL

Think of how much liquid is needed based on how concentrated the solution is. If the stock is 50 mg per 1 mL, every milliliter contains 50 mg. To get 25 mg, you only need half of that amount, so you'd use 0.5 mL. You can confirm with the calculation:  $25 \text{ mg} \div 50 \text{ mg/mL} = 0.5 \text{ mL}$ . The milligrams cancel out, leaving milliliters, and since 25 mg is exactly half of 50 mg, the required volume is half a milliliter.

10. What is 218 pounds in kilograms?

- A. 44.4 kg
- B. 62.1 kg
- C. 98.8 kg
- D. 157.3 kg

Converting pounds to kilograms uses the conversion  $1 \text{ kg} = 2.20462 \text{ lb}$  (or equivalently  $1 \text{ lb} = 0.453592 \text{ kg}$ ). To get kilograms from pounds, multiply by 0.453592 or divide by 2.20462. For 218 pounds,  $218 \times 0.453592 \approx 98.88 \text{ kg}$ , which is about 98.9 kg. Among the given options, 98.8 kg is the closest representation of that value, making it the best fit. The other numbers correspond to much smaller or much larger weights in pounds and don't align with 218 lb.

## Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at [hello@examzify.com](mailto:hello@examzify.com).

Or visit your dedicated course page for more study tools and resources:

<https://ccbmathdosagecalc.examzify.com>

We wish you the very best on your exam journey. You've got this!

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