

CCBMA Math and Dosage Calculations Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright	1
Table of Contents	2
Introduction	3
How to Use This Guide	4
Questions	5
Answers	8
Explanations	10
Next Steps	15

SAMPLE

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

SAMPLE

- 1. How much medicine is in 0.5 mL?**
- A. 3 mg
 - B. 15 mg
 - C. 7.5 mg
 - D. 1 mg
- 2. Which of the following is not a standard unit in the apothecary system?**
- A. Grains
 - B. Drachms
 - C. Minims
 - D. Liters
- 3. A patient needs 125 mg. The suspension concentration is 250 mg per 5 mL. What volume in mL should be given?**
- A. 2.5 mL
 - B. 5 mL
 - C. 1 mL
 - D. 0.5 mL
- 4. Which unit measures weight in the apothecary system?**
- A. Gram
 - B. Ounce
 - C. Pound
 - D. Grain
- 5. A dose of 50 mg is ordered. The solution is 25 mg per 5 mL. How many milliliters are required?**
- A. 10 mL
 - B. 5 mL
 - C. 7 mL
 - D. 12 mL

- 6. In what dosage form is this medication supplied?**
- A. Tablet
 - B. Gel
 - C. Liquid
 - D. Capsule
- 7. A patient weighs 80 pounds. To calculate a dose of 10 mg/kg, what is the total daily dose in milligrams (approximately)?**
- A. 360 mg
 - B. 320 mg
 - C. 380 mg
 - D. 400 mg
- 8. How many milliliters are in 1 teaspoon?**
- A. 2 mL
 - B. 5 mL
 - C. 15 mL
 - D. 1 mL
- 9. 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
- 10. Which abbreviation stands for Teaspoon?**
- A. T or tbsp
 - B. 1cc
 - C. mL
 - D. tsp

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. How much medicine is in 0.5 mL?

- A. 3 mg
- B. 15 mg
- C. 7.5 mg**
- D. 1 mg

To find how much medicine is in a given volume, multiply the volume by the concentration (mg per mL). The amount in milligrams equals $(\text{mg/mL}) \times (\text{mL})$. If the solution is 15 mg per 1 mL, then 0.5 mL carries $15 \times 0.5 = 7.5$ mg. So 0.5 mL contains 7.5 mg. If the concentration were different, you'd use that concentration in the same calculation $(\text{mg/mL}) \times (\text{mL})$ to get the dose.

2. Which of the following is not a standard unit in the apothecary system?

- A. Grains
- B. Drachms
- C. Minims
- D. Liters**

In the apothecary system, measurements for solids and liquids are given in traditional units like grains for weight, drachms for larger amounts of weight, and minims for small volumes. Liters, on the other hand, come from the metric system and are not part of the apothecary set. So a liter isn't a standard apothecary unit; if you're working in that system, you'd convert liters to the corresponding apothecary volume units (such as minims or fluid drachms) for dosing or compounding. The other units listed—grains, drachms, and minims—are all typical apothecary units.

3. A patient needs 125 mg. The suspension concentration is 250 mg per 5 mL. What volume in mL should be given?

- A. 2.5 mL**
- B. 5 mL
- C. 1 mL
- D. 0.5 mL

To dose from a suspension, convert the labeled strength to mg per mL, then use that to find the required volume. The suspension has 250 mg in 5 mL, which equals $250 \div 5 = 50$ mg per mL. To deliver 125 mg, you need $125 \div 50 = 2.5$ mL. You can also see this with a proportion: $125 \text{ mg} / x \text{ mL} = 250 \text{ mg} / 5 \text{ mL}$; cross-multiplying gives $x = (125 \times 5) / 250 = 2.5$ mL. Sanity check: 125 mg is half of 250 mg, so you use half of 5 mL, which is 2.5 mL.

4. Which unit measures weight in the apothecary system?

- A. Gram
- B. Ounce
- C. Pound
- D. Grain**

In the apothecary system, weight is measured in grains. The grain is the base unit, with larger apothecary units built from it (for example, the ounce and pound are defined as multiples of grains: 1 ounce apothecary = 480 grains, 1 pound apothecary = 12 ounces = 5760 grains). The gram belongs to the metric system, and the ounce or pound used here align with the avoirdupois system rather than the apothecary system. Historically, medicines were commonly prescribed by grains, so this unit is the characteristic weight measure of the apothecary system. A practical note: 1 grain is about 0.0648 grams.

5. A dose of 50 mg is ordered. The solution is 25 mg per 5 mL. How many milliliters are required?

- A. 10 mL**
- B. 5 mL
- C. 7 mL
- D. 12 mL

Converting a prescribed dose into the volume of liquid using the solution's concentration. The solution has 25 mg in 5 mL, which is 5 mg per 1 mL. To deliver 50 mg, use the relation $5 \text{ mg/mL} \times x \text{ mL} = 50 \text{ mg}$, so $x = 50 / 5 = 10 \text{ mL}$. You can also see this with a proportion: $25 \text{ mg}/5 \text{ mL} = 50 \text{ mg}/x \text{ mL}$ leads to $x = 10 \text{ mL}$. Since the dose doubles from 25 mg to 50 mg, the required volume doubles from 5 mL to 10 mL. Therefore, 10 mL is needed.

6. In what dosage form is this medication supplied?

- A. Tablet
- B. Gel
- C. Liquid**
- D. Capsule

Recognizing the dosage form comes from how the product is described on the label. When a medication is supplied as a liquid, you'll see terms like oral solution, syrup, or suspension, and the dosing information is given in milliliters. Liquids are chosen for precise volume dosing, which is especially useful for children or adults who have trouble swallowing pills. Solid forms—tablets or capsules—are described as such and are swallowed whole, while gels are a different, often semi-solid category. So the dosage form here is liquid.

7. A patient weighs 80 pounds. To calculate a dose of 10 mg/kg, what is the total daily dose in milligrams (approximately)?

- A. 360 mg
- B. 320 mg
- C. 380 mg
- D. 400 mg

Converting weight to kilograms and multiplying by the mg per kg dose shows the total daily dose. Convert 80 lb to kg: $80 \div 2.2046 \approx 36.3$ kg. Multiply by 10 mg/kg: $36.3 \times 10 \approx 363$ mg. Rounding to a practical dose gives about 360 mg daily. The other values would correspond to using weight estimates like 32 kg (320 mg), 38 kg (380 mg), or 40 kg (400 mg), which aren't as accurate for this weight.

8. How many milliliters are in 1 teaspoon?

- A. 2 mL
- B. 5 mL
- C. 15 mL
- D. 1 mL

Knowing common volume conversions is essential. One teaspoon is defined to hold about 5 milliliters. This comes from the relationship with a tablespoon, which is 15 milliliters, and there are three teaspoons in a tablespoon, so $15 \text{ mL} \div 3 = 5 \text{ mL}$ per teaspoon. Therefore, 1 teaspoon equals 5 milliliters. The other numbers do not fit because they correspond to smaller amounts (1 mL, 2 mL) or a larger measure (15 mL is a tablespoon). In dosing contexts we typically use 5 mL per teaspoon for accuracy and ease of calculation.

9. 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.

10. 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.

SAMPLE

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.

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!

SAMPLE