

MED-MATH DOSAGE CALCULATIONS PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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. A medication is supplied as 250 mg per 5 mL. How many mL are needed for a 600 mg dose?
 - A. 10 mL
 - B. 15 mL
 - C. 12 mL
 - D. 20 mL
2. A patient weighs 40 kg and the dose is 1 mg/kg. The drug concentration is 0.5 mg/mL. How many milliliters per dose should be administered?
 - A. 40 mL
 - B. 60 mL
 - C. 80 mL
 - D. 100 mL
3. A solution has a concentration of 25 mg/mL. If the prescribed dose is 0.5 g, how many milliliters are needed?
 - A. 5 mL
 - B. 10 mL
 - C. 20 mL
 - D. 25 mL
4. The daily dose is 0.175 mg of Levothyroxine. If tablets are 175 mcg, how many tablets are needed?
 - A. 0.5 tablet
 - B. 1 tablet
 - C. 1.5 tablets
 - D. 2 tablets
5. Convert 2500 mcg to mg?
 - A. 0.25 mg
 - B. 0.0025 mg
 - C. 2.5 mg
 - D. 25 mg

6. A 1000 mL IV bag with 20 gtt/mL over 8 hours. Rate in gtt/min?
- A. 41 gtt/min
 - B. 42 gtt/min
 - C. 50 gtt/min
 - D. 33 gtt/min
7. A drug has a maximum per dose of 1200 mg. A patient would receive 1600 mg/day. If divided into 3 doses, per-dose amount?
- A. 400 mg per dose
 - B. 5333 mg per dose
 - C. 1600 mg per dose
 - D. 533 mg per dose
8. A medication order is for 1.2 g. Express this dose in milligrams (mg).
- A. 120 mg
 - B. 1200 mg
 - C. 12000 mg
 - D. 12 mg
9. A patient is prescribed levothyroxine 0.275 mg daily. With 137 mcg tablets, how many tablets are needed for two weeks?
- A. 14 tablets
 - B. 21 tablets
 - C. 28 tablets
 - D. 42 tablets
10. Convert 75 mL to liters.
- A. 0.0075 L
 - B. 0.075 L
 - C. 0.75 L
 - D. 7.5 L

Answers

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

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Explanations

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1. A medication is supplied as 250 mg per 5 mL. How many mL are needed for a 600 mg dose?

- A. 10 mL
- B. 15 mL
- C. 12 mL**
- D. 20 mL

Find how much drug is in each milliliter. If 250 mg comes in 5 mL, then the concentration is $250 \text{ mg} \div 5 \text{ mL} = 50 \text{ mg per mL}$. To deliver 600 mg, use $\text{Volume} = \text{Dose} \div (\text{mg per mL}) = 600 \text{ mg} \div 50 \text{ mg/mL} = 12 \text{ mL}$. You can verify by multiplying back: $12 \text{ mL} \times 50 \text{ mg/mL} = 600 \text{ mg}$. So 12 mL is needed.

2. A patient weighs 40 kg and the dose is 1 mg/kg. The drug concentration is 0.5 mg/mL. How many milliliters per dose should be administered?

- A. 40 mL
- B. 60 mL
- C. 80 mL**
- D. 100 mL

The main idea is converting a weight-based dose into a volume using the drug's concentration. First find the total dose: weight times mg per kg equals $40 \text{ kg} \times 1 \text{ mg/kg} = 40 \text{ mg}$. Then convert that dose to milliliters with the concentration: $\text{volume} = 40 \text{ mg} \div 0.5 \text{ mg/mL} = 80 \text{ mL}$. Therefore, each dose should be 80 mL.

3. A solution has a concentration of 25 mg/mL. If the prescribed dose is 0.5 g, how many milliliters are needed?

- A. 5 mL
- B. 10 mL
- C. 20 mL**
- D. 25 mL

This question tests how to convert a prescribed dose into the volume to give using a solution's concentration. To find the volume, use the relationship: $\text{Volume (mL)} = \text{Dose (mg)} / \text{Concentration (mg/mL)}$. First convert the dose to milligrams: 0.5 g equals 500 mg. With a concentration of 25 mg per mL, the volume needed is $500 \text{ mg} \div 25 \text{ mg/mL} = 20 \text{ mL}$. A quick check: $25 \text{ mg/mL} \times 20 \text{ mL} = 500 \text{ mg}$, which matches the prescribed dose. So, you need 20 mL.

4. The daily dose is 0.175 mg of Levothyroxine. If tablets are 175 mcg, how many tablets are needed?

- A. 0.5 tablet
- B. 1 tablet**
- C. 1.5 tablets
- D. 2 tablets

Think in the same unit as the tablet strength and compare the doses directly. Convert the prescribed dose to micrograms: $0.175 \text{ mg} \times 1000 = 175 \text{ mcg}$. Each tablet provides 175 mcg, so the number of tablets needed is $175 \text{ mcg} \div 175 \text{ mcg per tablet} = 1$. Taking one tablet delivers exactly 0.175 mg, which matches the prescribed dose. No rounding is needed since the amounts align perfectly.

5. Convert 2500 mcg to mg?

- A. 0.25 mg
- B. 0.0025 mg
- C. 2.5 mg**
- D. 25 mg

To convert micrograms to milligrams, use that 1 milligram equals 1000 micrograms. Divide by 1000: $2500 \text{ mcg} \div 1000 = 2.5 \text{ mg}$. This is correct because $2.5 \text{ mg} \times 1000 \text{ mcg/mg} = 2500 \text{ mcg}$, which confirms the result. A common pitfall is dividing by 10 or 100 instead of 1000, which would give 0.25 mg or 0.025 mg, not the correct amount. For quick reference: 0.25 mg is 250 mcg, 0.0025 mg is 2.5 mcg, and 25 mg is 25,000 mcg.

6. A 1000 mL IV bag with 20 gtt/mL over 8 hours. Rate in gtt/min?

- A. 41 gtt/min
- B. 42 gtt/min**
- C. 50 gtt/min
- D. 33 gtt/min

To find IV flow rate in gtt/min, use $\text{rate} = (\text{volume} \times \text{drop factor}) / \text{time in minutes}$. Here, volume is 1000 mL, drop factor is 20 gtt/mL, and time is 8 hours (480 minutes). Multiply $1000 \times 20 = 20,000$ drops in total. Divide by 480 minutes: $20,000 / 480 = 41.666... \text{ gtt/min}$. Since you can't deliver a fraction of a drop, round to the nearest whole drop: 42 gtt/min. The other options would require a different total drops per minute (e.g., rounding down to 41, or using a shorter/longer time to yield 50 or 33), but with the given values, 42 gtt/min is the appropriate round-to-nearest result.

7. A drug has a maximum per dose of 1200 mg. A patient would receive 1600 mg/day. If divided into 3 doses, per-dose amount?

- A. 400 mg per dose
- B. 5333 mg per dose
- C. 1600 mg per dose
- D. 533 mg per dose**

Dividing the total daily dose by the number of administrations gives the amount per dose. So, $1600 \text{ mg/day} \div 3 \text{ doses} = 533.33 \text{ mg per dose}$. In practice you round to a whole milligram, which yields 533 mg per dose. This value is well below the maximum allowed per dose of 1200 mg, so it meets the limit. The result is the amount to give at each of the three doses.

8. A medication order is for 1.2 g. Express this dose in milligrams (mg).

- A. 120 mg
- B. 1200 mg**
- C. 12000 mg
- D. 12 mg

Converting grams to milligrams uses the fact that 1 g equals 1000 mg. To express 1.2 g in mg, multiply by 1000: $1.2 \text{ g} \times 1000 \text{ mg/g} = 1200 \text{ mg}$. You can also see this by splitting 1.2 g into 1 g (1000 mg) plus 0.2 g (200 mg), totaling 1200 mg. Other options correspond to different gram amounts (for example, 120 mg is 0.12 g, 12 mg is 0.012 g, and 12000 mg is 12 g), so 1200 mg is the correct conversion.

9. A patient is prescribed levothyroxine 0.275 mg daily. With 137 mcg tablets, how many tablets are needed for two weeks?

- A. 14 tablets
- B. 21 tablets
- C. 28 tablets**
- D. 42 tablets

To find how many tablets are needed, compare the prescribed daily dose with the tablet strength. Convert 0.275 mg to micrograms: $0.275 \text{ mg} = 275 \text{ mcg}$. Each tablet has 137 mcg. Daily, you'd take $275 \div 137 \approx 2.01$ tablets, so practically you take two tablets per day ($2 \times 137 = 274 \text{ mcg}$, just 1 mcg short of 275 mcg). Over two weeks (14 days), that's $2 \text{ tablets/day} \times 14 \text{ days} = 28 \text{ tablets}$. So 28 tablets provide the needed amount for fourteen days.

10. Convert 75 mL to liters.

- A. 0.0075 L
- B. 0.075 L**
- C. 0.75 L
- D. 7.5 L

Converting milliliters to liters comes down to how many milliliters fit in a liter: 1 L equals 1000 mL, so you divide by 1000. Multiply 75 mL by $(1 \text{ L} / 1000 \text{ mL})$ to get 0.075 L. The decimal moves three places to the left, since you're shrinking the amount by a factor of 1000. So 75 mL is 0.075 liters. The other numbers would come from dividing by 100 or 10,000, or not dividing at all, which isn't correct for this conversion.

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://medmathdosagecalc.examzify.com>

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

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