NLN PAX Mathematics 1 Exam Practice (Sample)

Study Guide

Everything you need from our exam experts!

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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

1. If 80 patients are treated and 25 do not improve, what percent improve?

A. 60%

B. 65%

C. 70%

D. 68.75%

2. A coach found that 2/5 of the baseball team reported for spring training in good physical condition. What is the decimal representation for that fraction?

A. 0.125

B. 0.2

C. 0.35

D. 0.4

3. What fraction of the 434-page book has been read if 396 pages have been read?

A. 198/434

B. 198/217

C. 99/217

D. 1

4. In a nursing home, 8 of 25 residents had their pets with them last month. What percentage of residents is this?

A. 30%

B. 40%

C. 32%

D. 35%

5. What is the reciprocal of 5 1/2?

A. 11/2

B. 1/5

C. 2/1

D. 2/11

6. Express 0.057 as a percentage.

A. 0.057%

B. 0.057

C. 5.70%

D. 57%

7. Express 125/1000 as a decimal.

A. 0.0125

B. 0.125

C. 1.25

D. 12.5

8. A medication is to be administered for 84 hours. How many days does this time period cover?

A. 2 days

B. 3 days

C. 3 1/2 days

D. 4 days

9. Express 17 out of 25 as a percentage.

A. 0.68%

B. 68%

C. 0.17%

D. 17.25%

10. The diameter of the lower power field is 2.0 millimeters; a cell that is half the field's diameter has a diameter of 1.0 millimeters. How many microns is that diameter?

A. 2,000 microns

B. 1,000 microns

C. 750 microns

D. 500 microns

Answers

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

Explanations

1. If 80 patients are treated and 25 do not improve, what percent improve?

A. 60%

B. 65%

C. 70%

D. 68.75%

This question tests how to turn a count into a percentage of a total. First, find how many improved: 80 total minus 25 who did not improve equals 55 who improved. Then convert to a percent: 55 out of 80 is 55/80 = 0.6875, which is 68.75%. So, 68.75% of patients improved.

2. A coach found that 2/5 of the baseball team reported for spring training in good physical condition. What is the decimal representation for that fraction?

A. 0.125

B. 0.2

C. 0.35

D. 0.4

Converting a simple fraction to a decimal. For 2/5, think that 1/5 is 0.2, so 2/5 is twice that, which is 0.4. Another way is to multiply top and bottom by 2 to get 4/10, and 4/10 equals 0.4. So the decimal representation is 0.4. The other options come from different fractions: 0.125 is 1/8, 0.2 is 1/5, and 0.35 is 7/20, none of which equal 2/5.

3. What fraction of the 434-page book has been read if 396 pages have been read?

A. 198/434

B. 198/217

C. 99/217

D. 1

Think of the fraction read as pages read over total pages: 396 out of 434. Both numbers are even, so divide by 2 to simplify: 396/434 becomes 198/217. Check for any other common factors; 217 is 7×31 and 198 is not divisible by 7 or 31, so no further reduction is possible. The fraction 198/217 accurately represents the part of the book already read, which is why the correct choice has 198/217.

4. In a nursing home, 8 of 25 residents had their pets with them last month. What percentage of residents is this?

A. 30%

B. 40%

C. 32%

D. 35%

Percent means part of a whole expressed per hundred. To find what percentage 8 out of 25 represents, divide the part by the whole: 8 ÷ 25 = 0.32. Multiply by 100 to convert to a percent: 0.32 × 100 = 32%. So 8 residents out of 25 is 32%.

5. What is the reciprocal of 5 1/2?

A. 11/2

B. 1/5

C. 2/1

D. 2/11

Reciprocal means flipping the numerator and the denominator. First convert the mixed number 5 1/2 to an improper fraction: 5 1/2 = 11/2. Now swap the top and bottom to get the reciprocal: 2/11. So the reciprocal is 2/11.

6. Express 0.057 as a percentage.

A. 0.057%

B. 0.057

C. 5.70%

D. 57%

Converting a decimal to a percentage means moving the decimal point two places to the right and adding the percent sign. For 0.057, moving two places gives 5.70, so the percent form is 5.70%. In other words, 0.057 as a portion out of 100 is 5.70%. Writing it as 0.057% would be a much smaller value (0.00057 as a decimal), and writing it as 0.057 or 57% would not match the original decimal.

7. Express 125/1000 as a decimal.

A. 0.0125

B. 0.125

C. 1.25

D. 12.5

When a fraction has a denominator that's a power of ten, you can convert it to a decimal by moving the decimal point in the numerator to the left the same number of places as there are zeros in the denominator. Here, 1000 has three zeros, so move the decimal three places left in 125—giving 0.125. You can also see this by simplifying 125/1000 to 1/8, and 1/8 equals 0.125. So the decimal form is 0.125. The other values would come from different denominators, so they don't match this fraction.

8. A medication is to be administered for 84 hours. How many days does this time period cover?

A. 2 days

B. 3 days

C. 3 1/2 days

D. 4 days

Converting hours to days is about using 24 hours in a day. To find how many days 84 hours covers, divide by 24. 84 ÷ 24 = 3.5, which means three days plus half a day. Three days equal 72 hours, and the remaining 12 hours make half a day, so 84 hours is 3 1/2 days.

9. Express 17 out of 25 as a percentage.

A. 0.68%

B. 68%

C. 0.17%

D. 17.25%

To express a fraction as a percentage, multiply by 100. For 17/25, do (17/25) × 100. Since 100/25 equals 4, this becomes 17 × 4 = 68. So the fraction 17/25 is 68%. Think of it another way: each 1/25 is 4% because 25 goes into 100 four times. With 17 of those parts, you have 17 × 4% = 68%. Why the others don't fit: 0.68% would be 0.0068 as a decimal, far smaller than 0.68; 0.17% is 0.0017, even smaller; 17.25% would correspond to 17.25 parts out of 100, not 17 out of 25, so it's not correct for 17/25.

10. The diameter of the lower power field is 2.0 millimeters; a cell that is half the field's diameter has a diameter of 1.0 millimeters. How many microns is that diameter?

A. 2,000 microns

B. 1,000 microns

C. 750 microns

D. 500 microns

Converting between metric units is the key idea here: 1 millimeter equals 1000 micrometers. The cell's diameter is 1.0 millimeters, so in micrometers it's 1.0 × 1000 = 1000 micrometers. Therefore, the diameter is 1000 microns.

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://nlnpaxmath1.examzify.com

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