Electronic Graduate Management Admission Test (e-GMAT) Practice Exam (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

Table of Contents

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. **When a certain value is added to each number in a set, what happens to the standard deviation?**

   A. The standard deviation increases

   B. The standard deviation decreases

   C. The standard deviation does not change

   D. The standard deviation becomes negative

2. **If a and b are positive integers such that a/4b = 6.35, which of the following could be the remainder when 4a is divided by 2b?**

   A. 16

   B. 32

   C. 40

   D. 64

3. **What is a foundational rule for variables in algebraic expressions?**

   A. Variables must always be defined as integers

   B. Variables can represent any type of number or quantity

   C. Variables are only used in fractions

   D. Variables cannot be combined with constants

4. **What is the condition for ensuring that at least 14 jelly beans removed from a jar are of the same color?**

   A. Removing an equal amount of all colors

   B. Removing n-1 beans of each color

   C. Removing only one type of bean

   D. Randomly removing any number of beans

5. **In a mixed doubles match, how many ways can teams be formed from 5 men and 4 women?**

   A. 80

   B. 100

   C. 120

   D. 140

6. **Why is being confident in using different types of equations important?**

    A. It helps in avoiding over-complication

    B. It makes problem-solving less challenging

    C. It enables correct and efficient setup of equations

    D. It decreases time spent on solving problems

7. **In quadratic inequalities, if the inequality is greater/less than equal to 0, what must be included in the final answer?**

    A. Only positive values

    B. Only negative values

    C. Greater/less than equal to 0

    D. All real numbers

8. **What condition leads a linear equation to only pass through two quadrants?**

    A. It is circular in nature

    B. It is parallel to the x-axis or y-axis

    C. It forms a triangle

    D. It includes an asymptote

9. **What is a common mistake when interpreting an algebraic expression without clear steps?**

    A. Skipping detailed breakdown of calculations

    B. Focusing solely on numeric values

    C. Relying on memory instead of a structured approach

    D. Keen attention to decimal placement

10. **What happens to the weight of the mixture when original components are replaced with pure sand?**

    A. The weight increases

    B. The weight decreases

    C. There is no net difference in weight

    D. The weight remains constant but composition changes

<u>Answers</u>

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

Explanations

1. **When a certain value is added to each number in a set, what happens to the standard deviation?**

    A. The standard deviation increases

    B. The standard deviation decreases

    C. The standard deviation does not change

    D. The standard deviation becomes negative

When a constant value is added to each number in a set, the standard deviation remains unchanged. This is because standard deviation is a measure of the dispersion or spread of a set of values around the mean.   Adding a constant shifts the entire dataset up or down but does not affect how spread out the values are from one another. For example, if all values in a set are increased by a certain number, the differences between any two values remain the same; therefore, the variability among the set doesn't change. The calculations for the standard deviation involve these deviations from the mean, and since those deviations do not change when a constant is added, the standard deviation itself is unaffected. Thus, the correct answer indicates that the standard deviation does not change when a specific value is added to every element of a set.

2. **If a and b are positive integers such that a/4b = 6.35, which of the following could be the remainder when 4a is divided by 2b?**

    A. 16

    B. 32

    C. 40

    D. 64

To find the remainder when $4a$ is divided by $2b$, we start from the given equation $\frac{a}{4b} = 6.35$. Rearranging, we have: $$a = 6.35 \times 4b = 25.4b$$ Since a and b are both positive integers, b must be chosen such that $25.4b$ is also an integer. This is only possible if b is a multiple of 10 because 25.4 can be expressed as $\frac{254}{10}$. Therefore, b can take values like $10, 20, 30, \ldots$. Next, we can express $4a$: $$4a = 4(25.4b) = 101.6b$$ Now, we need to divide $4a$ by $2b$: $$2b = 2b$$ Now, let's divide $4a$ by $2b$: $$\frac{4a$$

3. What is a foundational rule for variables in algebraic expressions?

    A. Variables must always be defined as integers

    B. Variables can represent any type of number or quantity

    C. Variables are only used in fractions

    D. Variables cannot be combined with constants

The foundational rule for variables in algebraic expressions is that variables can represent any type of number or quantity. This characteristic is essential for understanding how variables function within algebra. Variables are symbolic representations that allow for the expression of a wide range of values, including integers, fractions, decimals, and irrational numbers. They provide flexibility in mathematical expressions, enabling mathematicians and students to represent unknown quantities and to formulate general equations or expressions that can hold true across various contexts.   By allowing variables to represent any type of number, algebra facilitates problem-solving and the exploration of relationships between quantities. This fundamental understanding lays the groundwork for more advanced concepts in algebra and mathematics as a whole.

4. What is the condition for ensuring that at least 14 jelly beans removed from a jar are of the same color?

    A. Removing an equal amount of all colors

    B. Removing n-1 beans of each color

    C. Removing only one type of bean

    D. Randomly removing any number of beans

To establish the condition for ensuring that at least 14 jelly beans removed from a jar are of the same color, it is essential to apply the principles of the pigeonhole theorem. This theorem suggests that if more items are distributed across a smaller number of categories than there are categories, at least one category must contain multiple items. When considering option that involves removing n-1 beans of each color, if there are multiple colors of jelly beans (let's say k colors), by removing n-1 beans from each of those k colors, you would leave us one bean short of reaching the next full grouping of any color. Thus, when you remove one more jelly bean beyond this point—making it n (where n is the number of jelly beans of the color being targeted)—you are guaranteed to have at least one color reach 14 beans.   For example, if there are five colors of jelly beans, by removing 13 beans from each color, you have removed a total of 65 beans (assuming you started with at least 14 of each color) but have yet to exceed 13 in any individual color. However, with the next bean removed, you must pull one from a color that already has 13, thus securing that color

5. In a mixed doubles match, how many ways can teams be formed from 5 men and 4 women?

A. 80

B. 100

C. 120

D. 140

To determine how many ways teams can be formed in a mixed doubles match from 5 men and 4 women, we need to form two teams, each consisting of one man and one woman. First, we need to select one man from the 5 available men. There are 5 possible choices for the man. Next, we select one woman from the 4 available women. There are 4 possible choices for the woman.   To find the total number of ways to form one team of a man and a woman, we multiply the number of choices for men by the number of choices for women: 5 (choices for men) x 4 (choices for women) = 20 ways to form one team. Since this scenario involves mixed doubles, we can form two teams in the following manner: 1. Choose 2 men from the 5 available. 2. Choose 2 women from the 4 available. First, we will select two men from the five. This is calculated using combinations, represented mathematically as 5 choose 2, which is calculated as follows: $\binom{5}{2} = \frac{5!}{2!(5-2)!} = \frac{5!}{}$

6. Why is being confident in using different types of equations important?

A. It helps in avoiding over-complication

B. It makes problem-solving less challenging

C. It enables correct and efficient setup of equations

D. It decreases time spent on solving problems

Being confident in using different types of equations is crucial because it enables the correct and efficient setup of equations. This foundational skill allows individuals to identify the appropriate mathematical relationships needed to represent and solve problems accurately. When one is adept at utilizing various equations, they can quickly translate a real-world scenario into a mathematical form, leading to more straightforward problem-solving processes. This capability reduces the risk of errors that can arise from misapplying or misunderstanding the relationships between variables. Moreover, an efficient setup means that the problem is framed clearly, helping to streamline the overall approach to finding a solution. Having this confidence allows a person to move swiftly from understanding a problem to executing a plan with the correct equations, ultimately fostering a smoother and more productive problem-solving experience.

7. In quadratic inequalities, if the inequality is greater/less than equal to 0, what must be included in the final answer?

A. Only positive values

B. Only negative values

C. Greater/less than equal to 0

D. All real numbers

In quadratic inequalities, when the inequality is expressed as greater than or less than or equal to zero, it signifies the need to identify the values for which the quadratic expression evaluates to zero or produces negative values.   When dealing with the inequality that states the expression is less than or equal to zero, the solution involves determining the range of x-values that either yield a value of zero (the roots of the quadratic) or are such that the quadratic evaluates to negative numbers. Thus, it's important to include points where the expression equals zero as part of the solution set. For inequalities that are greater than or equal to zero, it similarly applies: the values that make the quadratic expression positive or equal to zero must be included. This means that in either case, acknowledging the values where the quadratic equals zero is essential to accurately represent the solution to the inequality.   In summary, the condition of the inequality dictates that zero itself, along with any values that lead to a negative response for "less than" cases or a positive response for "greater than" cases, must be incorporated into the final answer. This clearly illustrates why including the threshold (greater/less than equal to zero) is critical to capture the complete solution set for the quadratic inequality.

8. What condition leads a linear equation to only pass through two quadrants?

A. It is circular in nature

B. It is parallel to the x-axis or y-axis

C. It forms a triangle

D. It includes an asymptote

A linear equation typically has the general form $y = mx + b$, where m is the slope and b is the y-intercept. The nature of the slope determines how the line crosses the Cartesian plane.   When a linear equation is parallel to the x-axis, it means that the slope (m) is zero. In this case, the equation takes the form of $y = c$, where c is a constant. Such a line runs horizontally and will extend infinitely in both the positive and negative directions on the x-axis while remaining constant in the y-value. This means the line only intersects the y-axis at one point, resulting in the line passing through two quadrants: the upper and lower quadrants depending on the value of c.   Conversely, if a linear equation is parallel to the y-axis, the slope is undefined, and the equation is of the form $x = c$. This results in a vertical line that only intersects two quadrants: the right and left quadrants based on the value of c.   In summary, a linear equation that is parallel to either the x-axis or the y-axis can only touch two quadrants at any given time, which makes this condition the appropriate answer.

9. What is a common mistake when interpreting an algebraic expression without clear steps?

   A. Skipping detailed breakdown of calculations

   B. Focusing solely on numeric values

   C. Relying on memory instead of a structured approach

   D. Keen attention to decimal placement

The choice highlighting the common mistake of skipping detailed breakdown of calculations is particularly relevant when interpreting algebraic expressions. When individuals overlook the necessity for clear and stepwise calculations, they can easily misinterpret or miscalculate the expression's meaning or the value it represents. Algebra is inherently precise, and each component of an expression has its significance, which can become obscured without an explicit understanding of how they relate to one another. By not going through the steps methodically, important elements such as order of operations, distribution, or simplification can be neglected. This can lead to significant errors in final outcomes, as individuals may reach conclusions based on incomplete or incorrect interpretations of the algebraic relationships at play. Therefore, taking the time to break down an expression step-by-step ensures that each part is accurately handled, leading to a correct and complete understanding of the overall problem.

10. What happens to the weight of the mixture when original components are replaced with pure sand?

   A. The weight increases

   B. The weight decreases

   C. There is no net difference in weight

   D. The weight remains constant but composition changes

When original components are replaced with pure sand, the key idea to understand is that weight is a measure of the mass of the material present. In this scenario, if the original components are removed and replaced with an equal volume of pure sand, the total weight of the mixture remains the same as long as the weight of the removed components matches the weight of the sand added. This situation assumes that there are no losses of material during the replacement process, which means the mass of the components that are being taken out is equal to the mass of the sand being added. Therefore, when assessing the overall weight of the mixture after the substitution, there is no net change; it maintains its original weight even though the composition has changed. This reasoning highlights that if the two weights are equal, the overall weight of the mixture does not change, leading to the conclusion that there is no net difference in weight.

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://egmat.examzify.com

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