Test of Essential Academic Skills (TEAS) ATI Mathematics Practice Test (Sample)

Study Guide

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

SAMPLE

1. **How many degrees are in a right angle?**

   A. 45 degrees

   B. 90 degrees

   C. 180 degrees

   D. 360 degrees

2. **From the number of houses Amelia sold over the past ten years, which measure of central tendency most accurately reflects her sales performance?**

   A. Mean

   B. Median

   C. Mode

   D. Range

3. **If a patient's medication dosage increases by 30% from 270 mg, what will the new dosage be?**

   A. 81 mg

   B. 270 mg

   C. 300 mg

   D. 351 mg

4. **What is the square root of 81?**

   A. 7

   B. 8

   C. 9

   D. 10

5. **Find the missing value: 12 + ? = 28. What is the missing value?**

   A. 10

   B. 12

   C. 16

   D. 18

6. **Which group of doctors had the least number of members?**

    A. Group X

    B. Group Y

    C. Group Z

    D. Group W

7. **What is the area of a rectangle with a width of 6 cm and length of 8 cm?**

    A. 36 cm²

    B. 48 cm²

    C. 54 cm²

    D. 64 cm²

8. **If a shirt originally costs $50 and is on sale for 20% off, what is the sale price?**

    A. A. $30

    B. B. $40

    C. C. $50

    D. D. $25

9. **What was the mean time for the women who ran the 200m event?**

    A. 22.50 sec

    B. 22.66 sec

    C. 22.68 sec

    D. 22.77 sec

10. **Which of the following fractions is equal to 0.75?**

    A. A. 1/2

    B. B. 3/4

    C. C. 2/5

    D. D. 4/5

Answers

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

Explanations

1. How many degrees are in a right angle?

A. 45 degrees

B. 90 degrees

C. 180 degrees

D. 360 degrees

A right angle is defined as the angle that measures exactly 90 degrees. This measurement is a fundamental concept in geometry, as it is one of the basic building blocks for defining other angles and shapes.   When considering the other options, the angles of 45 degrees, 180 degrees, and 360 degrees represent different types of angles. An angle measuring 45 degrees is considered an acute angle, which is less than 90 degrees. An angle of 180 degrees is a straight angle, representing a straight line. Finally, 360 degrees represents a full rotation or a complete circle. Understanding that a right angle specifically measures 90 degrees helps clarify the distinctions between these types of angles and solidifies the foundational knowledge of angles in geometric terms.

2. From the number of houses Amelia sold over the past ten years, which measure of central tendency most accurately reflects her sales performance?

A. Mean

B. Median

C. Mode

D. Range

The median is the most effective measure of central tendency in this context because it represents the middle value of a data set when it is arranged in order. This is particularly useful in the case of sales data, which may be skewed by outliers or extreme values, such as a few particularly high or low sales years. By using the median, Amelia's typical sales performance is highlighted without the influence of these extreme values, providing a clearer picture of her overall sales trend over the ten years. When assessing Amelia's performance based on sales figures, the median ensures that half of her sales years are above this value and half are below it, effectively showcasing a more stable and representative measure of her sales. This is essential for performance analysis, as it reflects the central point of her sales data accurately, even if some years were exceptionally poor or successful.

3. If a patient's medication dosage increases by 30% from 270 mg, what will the new dosage be?

A. 81 mg

B. 270 mg

C. 300 mg

D. 351 mg

To find the new medication dosage after a 30% increase from an initial dosage of 270 mg, you start by calculating 30% of 270 mg.   First, convert the percentage into decimal form by dividing by 100:   30% = 0.30. Next, multiply this decimal by the original dosage: 0.30 × 270 mg = 81 mg. Now, add this amount to the original dosage to find the new dosage: 270 mg + 81 mg = 351 mg. Thus, the new dosage after a 30% increase from 270 mg is 351 mg. This computation confirms that the new dosage is indeed 351 mg, making it the correct answer. The process of breaking down the percentage calculation and the addition is essential for understanding how dosage adjustments work in medical settings.

4. What is the square root of 81?

A. 7

B. 8

C. 9

D. 10

To determine the square root of 81, one must identify the number that, when multiplied by itself, equals 81.   In this case, 9 multiplied by 9 gives 81. Therefore, the square root of 81 is 9. This can be verified through basic multiplication: 9 × 9 = 81. Thus, recognizing that the square root is derived from finding such a number confirms that the answer is indeed 9.   The other options, while they represent single-digit numbers, do not multiply to yield 81 when doubled. For instance, 7 x 7 equals 49, 8 x 8 equals 64, and 10 x 10 equals 100, none of which come close to 81. Therefore, 9 is the only correct and logical choice for the square root of 81.

5. Find the missing value: 12 + ? = 28. What is the missing value?

A. 10

B. 12

C. 16

D. 18

To find the missing value in the equation 12 + ? = 28, you need to determine what number, when added to 12, equals 28.   Starting with the equation, you can isolate the missing value by subtracting 12 from both sides. This gives you: ? = 28 - 12 When you perform the subtraction, you find: ? = 16 This indicates that the missing value is 16. This matches with the second choice, making it the correct answer. Understanding the basic operation of addition and how to manipulate equations to find unknown values is crucial in solving this type of problem.

6. Which group of doctors had the least number of members?

A. Group X

B. Group Y

C. Group Z

D. Group W

To determine which group of doctors had the least number of members, you would typically compare the numerical values associated with each group. In this case, the correct answer indicates that Group Y has the fewest members compared to Groups X, Z, and W. To support this conclusion, one would analyze the numbers representing each group. The distinction in membership numbers often reflects various factors, such as the specialization or focus of the doctors within each group. If Group Y is the one with the least representation, it suggests that either fewer individuals practice within that specialty or there are other reasons contributing to its smaller membership. This could be due to factors like higher training requirements, regional demand, or the nature of practice that attracts fewer doctors. In summary, identifying Group Y as having the least number of members is based on a specific comparison of member count among the groups, highlighting that its numerical representation was lower than that of the others.

7. What is the area of a rectangle with a width of 6 cm and length of 8 cm?

A. 36 cm²

B. 48 cm²

C. 54 cm²

D. 64 cm²

To find the area of a rectangle, you multiply its length by its width. The formula for calculating the area A of a rectangle is: $$A = \text{length} \times \text{width}$$ In this case, the length is 8 cm and the width is 6 cm. By substituting these values into the formula, we have: $$A = 8 \, \text{cm} \times 6 \, \text{cm} = 48 \, \text{cm}^2$$ Therefore, the area of the rectangle is 48 square centimeters. This corresponds to the answer provided, confirming the calculation is correct. Understanding the area in terms of square centimeters helps visualize how much space the rectangle occupies. In this case, the product of the length and the width, both measured in centimeters, results in square centimeters, which is the correct unit for area.

8. If a shirt originally costs $50 and is on sale for 20% off, what is the sale price?

A. A. $30

B. B. $40

C. C. $50

D. D. $25

To find the sale price of the shirt after applying the 20% discount, first determine the amount of the discount.   Starting with the original price of the shirt, which is $50, calculate 20% of this price. This is done by multiplying the original price by 0.20: $$ \text{Discount} = 50 \times 0.20 = 10 $$ Now, subtract the discount from the original price to find the sale price: $$ \text{Sale Price} = \text{Original Price} - \text{Discount} = 50 - 10 = 40 $$ Thus, the sale price of the shirt after the 20% discount is $40. This process involves understanding how to apply a percentage discount to a given price, leading to the correct calculation of the final sale price.

9. What was the mean time for the women who ran the 200m event?

A. 22.50 sec

B. 22.66 sec

C. 22.68 sec

D. 22.77 sec

To determine the mean time for the women who ran the 200m event, you would typically need the individual times of all competitors. The mean is calculated by adding together all the individual race times and then dividing that total by the number of participants. If option C, which states 22.68 seconds, is the correct answer, it implies that when all the recorded times are summed and averaged, this value is indeed the average, or mean, time. This indicates that the time reflects a central tendency of the data set, providing a representative measure of the performance of the women in this specific event. In this scenario, if you examine the other options, they are values that could conceivably be times that some participants achieved, but they do not represent the calculated average based on the data available. Therefore, while they are plausible times, they do not carry the same significance as the mean time provided in option C. This helps to confirm that option C reflects the broader performance trend within the group of competitors.

10. Which of the following fractions is equal to 0.75?

A. A. 1/2

B. B. 3/4

C. C. 2/5

D. D. 4/5

To determine which fraction is equal to 0.75, it's helpful to understand that 0.75 can also be expressed as a fraction. The decimal 0.75 is equivalent to 75/100. To simplify this fraction, both the numerator and the denominator can be divided by 25, resulting in 3/4. Identifying that 3/4 equals 0.75 makes the choice of this fraction clear. Additionally, converting 3/4 to a decimal through division (3 divided by 4) also confirms that it equals 0.75. Examining the fractions represented in the other choices reveals that they do not equate to 0.75. For instance, 1/2 equals 0.5, 2/5 equals 0.4, and 4/5 equals 0.8; none of these are equal to 0.75. Thus, the fraction that corresponds to 0.75 is indeed 3/4.

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://teas-maths.examzify.com

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