

GRE QUANTITATIVE REASONING PRACTICE EXAM (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. For the data set 1, 2, 3, 4, 5, 6, 7, 8, what is the interquartile range (IQR)?
- A. 3
 - B. 4
 - C. 5
 - D. 6
2. If xy and xz share a common factor x , which expression equals $xy + xz$?
- A. $x(y + z)$
 - B. $y(x + z)$
 - C. $xy + z$
 - D. $(x + z)y$
3. If an arc measure is 140 degrees, what is the measure of the inscribed angle that subtends it?
- A. 70
 - B. 35
 - C. 105
 - D. 140
4. A quadratic equation can have how many real solutions at most?
- A. Zero
 - B. One
 - C. Two
 - D. Infinitely many
5. Dividing both sides of an inequality by a negative number reverses the inequality's direction.
- A. The direction is preserved.
 - B. The direction reverses.
 - C. The inequality becomes an equality.
 - D. Division by a negative number is not allowed.

6. Compute $(x^2)^3$.

- A. x^9
- B. x^3
- C. x^6
- D. x^{12}

7. Which equation expresses the Pythagorean theorem?

- A. $a^2 + c^2 = b^2$
- B. $a^2 + b^2 = c^2$
- C. $b^2 + c^2 = a^2$
- D. $c^2 = a^2 + b^2$

8. In an equilateral triangle, each interior angle measures how many degrees?

- A. 45 degrees
- B. 30 degrees
- C. 60 degrees
- D. 90 degrees

9. What is x^1 equal to?

- A. x
- B. 1
- C. x^0
- D. x^2

10. What is the central angle for a full circle?

- A. 180 degrees
- B. 90 degrees
- C. 360 degrees
- D. 0 degrees

Answers

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

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Explanations

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1. For the data set 1, 2, 3, 4, 5, 6, 7, 8, what is the interquartile range (IQR)?

- A. 3
- B. 4**
- C. 5
- D. 6

Interquartile range measures the spread of the middle 50% of the data, found by subtracting the first quartile from the third quartile: $IQR = Q3 - Q1$. With the data 1 through 8, the median is the average of the 4th and 5th values: $(4 + 5) / 2 = 4.5$. Split the data into lower half 1, 2, 3, 4 and upper half 5, 6, 7, 8. The first quartile is the median of the lower half: $(2 + 3) / 2 = 2.5$. The third quartile is the median of the upper half: $(6 + 7) / 2 = 6.5$. Therefore $IQR = 6.5 - 2.5 = 4$.

2. If xy and xz share a common factor x , which expression equals $xy + xz$?

- A. $x(y + z)$**
- B. $y(x + z)$
- C. $xy + z$
- D. $(x + z)y$

Factoring out the common factor from a sum: both terms contain x , so factor x to get $x(y + z)$. This is the same expression because expanding $x(y+z)$ gives $xy + xz$. The other forms change the grouping of factors or drop the x in the second term, so they don't equal the original sum (for example, $y(x+z)$ expands to $xy + yz$, and $xy + z$ drops the x with z). Therefore, the expression is $x(y + z)$.

3. If an arc measure is 140 degrees, what is the measure of the inscribed angle that subtends it?

- A. 70**
- B. 35
- C. 105
- D. 140

An inscribed angle measures half the arc it intercepts. Since the arc is 140 degrees, the inscribed angle subtending it is half of that, which is 70 degrees. Therefore, the measure is 70 degrees. (For comparison, a central angle subtending the same arc would be 140 degrees.)

4. A quadratic equation can have how many real solutions at most?

- A. Zero
- B. One
- C. Two**
- D. Infinitely many

When solving a quadratic, the number of real solutions is determined by the discriminant, $b^2 - 4ac$. If this value is positive, there are two distinct real solutions; if it is zero, there is one real solution (a repeated root); if it is negative, there are no real solutions (the roots are complex). Therefore, a quadratic can have at most two real solutions, which occurs when the discriminant is positive.

5. Dividing both sides of an inequality by a negative number reverses the inequality's direction.

A. The direction is preserved.

B. The direction reverses.

C. The inequality becomes an equality.

D. Division by a negative number is not allowed.

Dividing by a negative number reverses the inequality because the order of numbers flips when you apply a negative scaling. Think of a concrete example: $2 < 5$. Divide both sides by -1 and you get $-2 > -5$. The larger number becomes the smaller after division, so the inequality direction flips. Generalize it: if you have two numbers A and B with $A < B$ and you divide by a negative number c ($c < 0$), then $A/c > B/c$. Write $c = -k$ with $k > 0$. Then $A/c = -(A/k)$ and $B/c = -(B/k)$. Since $A < B$ implies $A/k < B/k$, negating both sides gives $-(A/k) > -(B/k)$, which is $A/c > B/c$. That's why the direction changes when dividing by a negative. Dividing by a positive number would keep the same direction.

6. Compute $(x^2)^3$.

A. x^9

B. x^3

C. x^6

D. x^{12}

Raising a power to another power multiplies the exponents: $(x^2)^3 = x^{(2 \cdot 3)} = x^6$. You can also see it by multiplying three x^2 factors: $x^2 \cdot x^2 \cdot x^2 = x^{(2+2+2)} = x^6$. So the result is x^6 .

7. Which equation expresses the Pythagorean theorem?

A. $a^2 + c^2 = b^2$

B. $a^2 + b^2 = c^2$

C. $b^2 + c^2 = a^2$

D. $c^2 = a^2 + b^2$

In a right triangle, the two shorter sides are the legs and the longest side is the hypotenuse. The Pythagorean theorem says the sum of the squares of the legs equals the square of the hypotenuse. With legs named a and b and the hypotenuse named c , that relationship is $a^2 + b^2 = c^2$. This form directly matches the standard statement of the theorem, which is why it's the correct expression. The other forms would imply a different side as the hypotenuse or are just rearrangements of the same equation.

8. In an equilateral triangle, each interior angle measures how many degrees?

- A. 45 degrees
- B. 30 degrees
- C. 60 degrees
- D. 90 degrees

In any triangle the interior angles add up to 180 degrees, and in an equilateral triangle all three angles are equal because all sides are the same. So each angle is 180 divided by 3, which is 60 degrees. Therefore, every interior angle measures 60 degrees. If you tried any other number, three equal angles could not sum to 180, so those options wouldn't fit.

9. What is x^1 equal to?

- A. x
- B. 1
- C. x^0
- D. x^2

Raising a variable to the first power means multiplying the base by itself one time, which leaves the base unchanged. So x^1 equals x . This follows the basic rule that the exponent counts how many copies of the base you multiply. The other expressions aren't generally equal to x : x^0 equals 1 (for nonzero x), and x^2 equals x times x , which is not the same as x . Hence the result is x .

10. What is the central angle for a full circle?

- A. 180 degrees
- B. 90 degrees
- C. 360 degrees
- D. 0 degrees

A central angle is formed by two radii with the center as the vertex. To sweep all the way around the circle, you complete a full turn around the center. The total measure around a point is 360 degrees, so the central angle for a full circle is 360 degrees. If you only go halfway around, you get a straight angle; a quarter turn is a quarter of the circle; zero rotation means no angle at all.

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://grequantitativereasoning.examzify.com>

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

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