7th Grade Math Practice Test (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. Convert 4 7/9 to an improper fraction.

A. 43/9

B. 37/9

C. 4/9

D. 40/9

2. How many real solutions does the equation |2x - 5| = 9 have?

A. 1

B. 4

C. 3

D. 2

3. Evaluate the expression 3x - 2(y + 4) when x = 5 and y = 2.

A. -3

B. 0

C. 3

D. 9

4. Estimate 236.95 - 107.85.

A. 128.00

B. 129.10

C. 130.00

D. 131.00

5. What is the result of multiplying -6 by 3?

A. -3

B. 0

C. 18

D. -18

6. Solve the proportion 2/3 = x/42.

A. 28

B. 14

C. 21

D. 42

7. Which equation represents a line with slope 3 and y-intercept -2?

A. y = 3x - 2

B. y = -3x + 2

C. y = x - 2

D. y = 3x + 2

8. Multiply (7/9) by (3/7).

A. 7/9

B. 3/7

C. 9/7

D. 1/3

9. Express 3/4 as a decimal.

A. 0.75

B. 0.3

C. 0.4

D. 0.25

10. Solve for x: x + 19 = 35.

A. 16

B. 12

C. 15

D. 17

Answers

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

Explanations

1. Convert 4 7/9 to an improper fraction.

A. 43/9

B. 37/9

C. 4/9

D. 40/9

Converting a mixed number to an improper fraction means turning the whole-number part into the same denominator as the fraction part and then adding the two parts together. For 4 7/9, think of four wholes each made of 9 ninths, plus the extra 7 ninths. Four whole units give 4 × 9 = 36 ninths, and adding the extra 7 ninths makes 36 + 7 = 43 ninths. Put over the same denominator, you get 43/9. This matches the idea that 4 7/9 equals 43 ninths total. The other fractions don't reflect both the four whole parts and the 7/9 part: 37/9 would be 4 and 1/9, 40/9 would be 4 and 4/9, and 4/9 would be less than one whole.

2. How many real solutions does the equation |2x - 5| = 9 have?

A. 1

B. 4

C. 3

D. 2

Absolute value represents distance from zero, so when you see |2x - 5| = 9, you're looking for all expressions whose distance from zero is 9. That means the inside, 2x - 5, could be 9 or could be -9. Solve each case: - 2x - 5 = 9 → 2x = 14 → x = 7 - 2x - 5 = -9 → 2x = -4 → x = -2 There are two real solutions: x = 7 and x = -2.

3. Evaluate the expression 3x - 2(y + 4) when x = 5 and y = 2.

A. -3

B. 0

C. 3

D. 9

Evaluating this expression uses substitution and the distributive property. Start by replacing x with 5 and y with 2. Compute inside the parentheses first: y + 4 = 2 + 4 = 6. The expression becomes 3(5) − 2(6) = 15 − 12, and then 15 − 12 = 3. You can also apply the distributive idea first: −2(y + 4) = −2y − 8, so the expression is 3x − 2y − 8. Substituting x = 5 and y = 2 gives 3(5) − 2(2) − 8 = 15 − 4 − 8 = 3. The result is 3.

4. Estimate 236.95 - 107.85.

A. 128.00

B. 129.10

C. 130.00

D. 131.00

Rounding to the nearest ten helps estimate subtraction by turning numbers into friendly tens. 236.95 rounds to 240, and 107.85 rounds to 110. Subtracting gives 240 − 110 = 130, which is a reasonable, quick estimate of the difference. The exact result is 129.10, so the choice around 130 fits the goal of a simple, close estimate. If you rounded to the nearest whole number, you'd get 237 − 108 = 129, which is also a rough check, but the tens-round approach matches the common estimation style here.

5. What is the result of multiplying -6 by 3?

A. -3

B. 0

C. 18

D. -18

When you multiply a negative number by a positive number, the product is negative. The size of the result is found by multiplying their absolute values: |−6| × |3| = 6 × 3 = 18. So the product is −18. Think of owing 6 dollars three times—you're down 18 dollars, not up. This makes sense because the signs are different, so the result is negative, and the magnitude is 18. - -3 would come from multiplying by a smaller factor like 0.5, not 3. - 0 would require one of the numbers to be 0. - 18 would occur if both numbers had the same sign.

6. Solve the proportion 2/3 = x/42.

A. 28

B. 14

C. 21

D. 42

Solving a proportion uses cross-multiplication: when two fractions are equal, their cross products are the same. For 2/3 = x/42, multiply the outer and inner terms: 2 × 42 = 3 × x. That gives 84 = 3x, so x = 84 ÷ 3 = 28. Checking: 28/42 simplifies to 2/3, confirming the match. The other values wouldn't balance the proportion because they'd produce fractions like 14/42 = 1/3, 21/42 = 1/2, or 42/42 = 1, none of which equal 2/3.

7. Which equation represents a line with slope 3 and y-intercept -2?

A. y = 3x - 2

B. y = -3x + 2

C. y = x - 2

D. y = 3x + 2

This uses slope-intercept form, where y = mx + b, with m as the slope and b as the y-intercept. A line with slope 3 means the rise over run is 3 for every 1 unit the x changes, and a y-intercept of -2 means the line crosses the y-axis at -2 (the value of y when x is 0). Putting those together gives y = 3x + (-2), which is y = 3x - 2. That is the only option that has both a slope of 3 and a y-intercept of -2. The other options either have the wrong slope (negative 3, or 1) or the wrong intercept (positive 2).

8. Multiply (7/9) by (3/7).

A. 7/9

B. 3/7

C. 9/7

D. 1/3

When you multiply fractions, you multiply the numerators together and the denominators together. You can often simplify first by canceling common factors between a numerator and a denominator from the other fraction. In this case, there is a 7 in a numerator and a 7 in a denominator, so you can cancel those, leaving (1/9) times (3/1). Then multiply to get 3/9, which simplifies to 1/3. So the result is 1/3.

9. Express 3/4 as a decimal.

A. 0.75

B. 0.3

C. 0.4

D. 0.25

Three quarters means you're looking at three equal parts of a whole that's divided into four pieces. Each quarter is 0.25 in decimal form, so three of them add up to 0.25 + 0.25 + 0.25 = 0.75. You can also see this by dividing 3 by 4, which gives 0.75. That's why 0.75 matches 3/4. The other options represent different fractions: 0.3 is 3/10, 0.4 is 2/5, and 0.25 is 1/4.

10. Solve for x: x + 19 = 35.

A. 16

B. 12

C. 15

D. 17

Undoing the operation on x is the idea here. Since x is being added to 19, you isolate x by subtracting 19 from both sides. That gives x = 35 − 19, which equals 16. If you check your work by substituting, 16 + 19 indeed equals 35, so it fits perfectly. The other options wouldn't make the left side total 35 when you add 19, so they wouldn't satisfy the equation.

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://7thgrademath.examzify.com

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