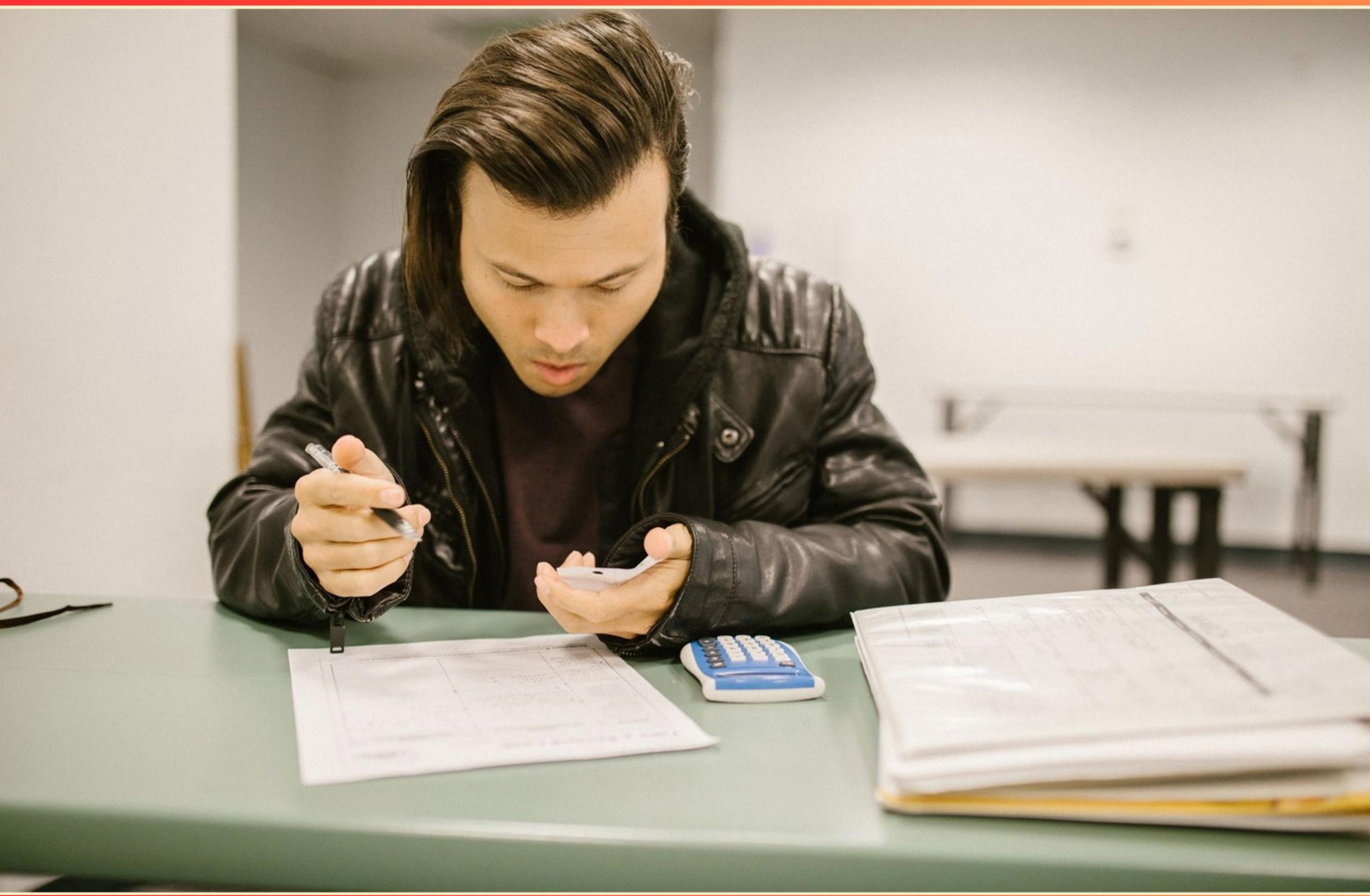
COLLEGE ALGEBRA CLEP PREP PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://collegealgebrapreppractice.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 15

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. Quadratic equation x^2 + 2x + 1 = 0 has what type of solutions?

A. Complex

B. Imaginary

C. Linear

D. Real

2. Find the slope of the line that is perpendicular to the line 4x + 8 = 0.

A. -1/4

B. -4

C. 4

D. 1/4

3. Find the solution of the equation 22x = 2(7 + 8x).

A. 0

B. 4

C. 8

D. 11

4. If 2a + b = 10 and a - 3b = 8, what is the value of a?

A. 2

B. 4

C. 6

D. 8

5. What is the equation of the circle with diameter AB, where A is (-3,4) and B is (6,2)?

A. (x-4.5)2 + (y-3)2 = 4.25

B. (x+4.5)2 + (y-3)2 = 4.25

C. (x-4.5)2 + (y+3)2 = 4.25

D. (x+4.5)2 + (y+3)2 = 4.25

6. What is the zeroes of the function f(x) = x^2 + 3x - 10?

A. -2, -5

B. -2, 5

C. 2, -5

D. 2, 5

SAMPLE

7. What is the sum of two positive 3-digit numbers?

A. Twenty

B. Five thousand

C. Six thousand

D. Nine hundred

8. What is the solution of the following equation?

A. -7/4

B. -4/7

C. 0

D. 5

9. What is the value of 3x2y when x = 3 and y = 4?

A. 72

B. 12

C. 16

D. 36

10. What is the y-intercept of the equation y = 5x + 18?

A. 5

B. 18

C. 0

D. 1

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Quadratic equation x^2 + 2x + 1 = 0 has what type of solutions?

A. Complex

B. Imaginary

C. Linear

D. Real

Quadratic equation x^2 + 2x + 1 = 0 has real solutions because the equation has a discriminant (b^2 - 4ac) of 0, which means the solutions will be equal. This type of solution is referred to as a perfect square solution. If the discriminant was less than 0, the solutions would be complex or imaginary, and if it was greater than 0, the solutions would be distinct and real. A linear equation has degree 1, so a quadratic equation cannot have linear solutions. Therefore, options A, B, and C are all incorrect.

2. Find the slope of the line that is perpendicular to the line 4x + 8 = 0.

A. -1/4

B. -4

C. 4

D. 1/4

Slope is a measure of the steepness of a line. In this case, the given line 4x + 8 = 0 is in the form y = mx + b where m is the slope. Therefore, the slope of this line is -4. To find the slope of a line perpendicular to this one, we use the fact that perpendicular lines have slopes that are negative reciprocals of each other. In other words, if the given line has a slope of m, the perpendicular line will have a slope of -1/m. So, in this case, the perpendicular line will have a slope of -1/(-4), which simplifies to 1/4. Therefore, option D, 1/4, is the correct answer. Option A, -1/4, is incorrect because it is simply the negative of the

3. Find the solution of the equation 22x = 2(7 + 8x).

A. 0

B. 4

C. 8

D. 11

To find the solution for this equation, we need to first eliminate the parentheses by using the distributive property. This means multiplying 2 with both numbers inside the parentheses, giving us the new equation 22x = 14 + 16x. Next, we can combine like terms by subtracting 16x from both sides, giving us 6x = 14. Finally, we can solve for x by dividing both sides by 6, giving us the solution x = 2. Option A is incorrect because setting x=0 does not satisfy the equation. Option C is also incorrect because setting x=8 leads to an incorrect solution. Option D is incorrect because setting x=11 also leads to an incorrect solution. Therefore, the correct solution is option B, x=2.

SAMPLE

4. If 2a + b = 10 and a - 3b = 8, what is the value of a?

A. 2

B. 4

C. 6

D. 8

*To find the value of a, we can solve the given equations using the substitution method. We first isolate a in the first equation by subtracting b from both sides, giving us 2a = 10 - b. Then, we can substitute this expression for a into the second equation and solve for b. Plugging in 10 - b for a, we get 10 - b - 3b = 8. Simplifying, we get -4b = -2, which means b = 1/2. Finally, we can plug this value for b into the first equation and solve for a. 2a + (1/2) = 10, so 2a = 19/2 and a = (19/2) * 1/2 = 19/4. Therefore, the correct answer is B (4). Option*

5. What is the equation of the circle with diameter AB, where A is (-3,4) and B is (6,2)?

A. (x-4.5)2 + (y-3)2 = 4.25

B. (x+4.5)2 + (y-3)2 = 4.25

C. (x-4.5)2 + (y+3)2 = 4.25

D. (x+4.5)2 + (y+3)2 = 4.25

The equation of a circle is (x-h)^2 + (y-k)^2 = r^2, where (h,k) is the center of the circle and r is the radius. In this question, the diameter AB has a midpoint at (-3+6)/2 = 3 and (4+2)/2 = 3. Therefore, the center is (3,3). The radius is half of the diameter, which is (6-(-3))/2 = 9/2. So the equation of the circle is (x-3)^2 + (y-3)^2 = (9/2)^2. Simplifying, we get (x+4.5)^2 + (y+3)^2 = 20.25. Option D is the correct equation of the circle. Options A, B, and C are incorrect because they do not

6. What is the zeroes of the function f(x) = x^2 + 3x - 10?

A. -2, -5

B. -2, 5

C. 2, -5

D. 2, 5

The zeroes of a function are the values of x where the function equals zero. In this case, the function f(x) = x^2 + 3x - 10 has two zeroes, which are 2 and -5. This means that when x = 2 or x = -5, f(x) = 0. To determine the zeroes of a function, we can use the quadratic formula or factor the function. In this case, factoring is easier since the first term is just x^2. By factoring, we get (x + 5)(x - 2) = 0. Therefore, the zeroes are -5 and 2. Option A is incorrect because x = -2 does not produce a zero when substituted into the function. Option B is incorrect because x = 5 does not produce a zero when substituted into the

SAMPLE

7. What is the sum of two positive 3-digit numbers?

A. Twenty

B. Five thousand

C. Six thousand

D. Nine hundred

Context Positive 3-digit numbers are numbers that range from 100 to 999. Option A (Twenty) and Option B (Five thousand) are incorrect because they do not fall within the range of positive 3-digit numbers. Option D (Nine hundred) is also incorrect because the sum of two 3-digit numbers cannot be a single 3 digit number. Option C (Six thousand) is the correct answer as the sum of two 3-digit numbers can range from 200 (100 + 100) to 1998 (999 +999), both of which are 4-digit numbers starting with a 1. Additionally, all other combinations of two 3-digit numbers will have a sum that results in a 4-digit number. Therefore, the only possible 3-digit sum is 1000, making Option C the correct answer.

8. What is the solution of the following equation?

A. -7/4

B. -4/7

C. 0

D. 5

*A solution to an equation is a value that when substituted into the equation makes it true. To find the solution to this equation, one can use the order of operations and follow the steps 5 * (-2/3) = -7/3. Therefore, -7/3 is the solution to this equation and choice A is correct. Option B is incorrect because it is the reciprocal of the correct answer. Choices C and D are also incorrect because they are not equivalent to the simplified expression of -7/3.*

9. What is the value of 3x2y when x = 3 and y = 4?

A. 72

B. 12

C. 16

D. 36

In this scenario, x = 3 and y = 4. Therefore, the equation becomes 3(3)(2)(4), giving us 36(8) which equals 288. However, we need to find the value of 3x2y, which means we need to multiply all three numbers together in the parentheses to get the final answer. 3(2)(4) gives us 24, and when multiplied by 3, we get 72 as the final answer. Option B would be incorrect, as it only takes into account the values of x and y, but not the entire equation. Option C and D both incorrectly multiply x and y first, which would give us a different value altogether. Therefore, the correct answer is A 72.

SAMPLE

10. What is the y-intercept of the equation y = 5x + 18?

A. 5

B. 18

C. 0

D. 1

The y-intercept of an equation represents the point where the line crosses the y-axis. In the given equation, y = 5x + 18, the value of 18 is the constant term and is being added to the y-value. This means that at x=0 (the y-axis), the value of y will be 18. All other options, A (5), C (0), and D (1) are incorrect as they do not represent the y-intercept. Option A (5) is the coefficient of x and represents the slope of the line, while options C (0) and D (1) do not even appear in the equation. Therefore, the correct answer is B (18) as it represents the y-intercept of the given equation.

SAMPLE

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://collegealgebraprepppractice.examzify.com

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

SAMPLE