

# College Algebra CLEP Prep Practice Exam (Sample)

## Study Guide



**Everything you need from our exam experts!**

**This is a sample study guide. To access the full version with hundreds of questions,**

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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. Don't worry about getting everything right, 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, and take breaks to retain information better.**

## 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.**

## 7. Use Other Tools

**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!**

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## **Questions**

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- 1. What is the graph of the equation  $x^2 = 25$ ?**
  - A. Parabola
  - B. Line
  - C. Hyperbola
  - D. Circle
  
- 2. When solving the equation  $7x - 4 = 5x + 3$ , what is the value of x?**
  - A. -1
  - B. 1
  - C. -7
  - D. 7
  
- 3. What is the solution to the system of equations  $y = 2x + 3$  and  $y = -2x + 5$ ?**
  - A. (0,8)
  - B. (-1,8)
  - C. (1,4)
  - D. (2,3)
  
- 4. What is the solution set for the equation  $|3x - 5| = 17$ ?**
  - A. {-12, 22}
  - B. {12, 22}
  - C. {-22, 12}
  - D. {-22, -12}
  
- 5. How much does  $6/7$  of a line measure?**
  - A.  $11/14$
  - B.  $1/7$
  - C.  $6/7$
  - D.  $7/6$

6. What is the difference between the squares of the two numbers 4 and 8?

- A. 16
- B. 32
- C. 64
- D. 128

7. Which is the solution of the equation  $2x^2 + 5x - 3 = 0$ ?

- A. -2 and 3/2
- B. -2 and 0.6
- C. 2 and -3/2
- D. 2 and -0.6

8. What is the equation of the line that passes through the point (-2, -1) and is parallel to  $y = 4x + 8$ ?

- A.  $y = -4x - 7$
- B.  $y = -4x - 10$
- C.  $y = 4x - 8$
- D.  $y = 4x - 10$

9. Which of the following is not a factor of  $x^2 + 5x - 48$ ?

- A.  $x - 4$
- B.  $x - 3$
- C.  $x + 8$
- D.  $x + 9$

10. What is the solution to the equation  $x^2 + 3x + 2 = 0$ ?

- A. -1
- B. 2
- C. -2
- D. 1

## **Answers**

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

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## **Explanations**

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**1. What is the graph of the equation  $x^2 = 25$ ?**

- A. Parabola**
- B. Line**
- C. Hyperbola**
- D. Circle**

This is because  $x^2 = 25$  can be written as  $(x-0)^2 + (y-0)^2 = 25$ , which is the equation of a circle with center at  $(0,0)$  and a radius of 5. The other options, parabola, line, and hyperbola, do not fit this equation and are therefore incorrect. Remember, a parabola is characterized by the equation  $y = ax^2 + bx + c$ , a line has a linear equation  $y = mx + b$ , and a hyperbola has the form  $x^2/a^2 - y^2/b^2 = 1$ . Only the equation for a circle,  $(x-h)^2 + (y-k)^2 = r^2$ , satisfies the equation  $x^2 = 25$ . Therefore, the correct graph for  $x^2 = 25$

**2. When solving the equation  $7x - 4 = 5x + 3$ , what is the value of x?**

- A. -1**
- B. 1**
- C. -7**
- D. 7**

To solve this equation, we need to isolate x on one side of the equal sign. By subtracting  $5x$  from both sides and adding 4 to both sides, we get  $2x = 7$ . Dividing both sides by 2, we can see that  $x = 7/2$ . None of the other options accurately represent this value of x. Option A and C both result in negative values for x, while option D results in a larger value for x. Therefore, the only correct option is B 1.

**3. What is the solution to the system of equations  $y = 2x + 3$  and  $y = -2x + 5$ ?**

- A. (0,8)**
- B. (-1,8)**
- C. (1,4)**
- D. (2,3)**

The solution to the given system of equations is the point where the two lines intersect, which is  $(2,3)$  in this case. This point satisfies both equations  $y = 2x + 3$  and  $y = -2x + 5$ . Option A (0,8) does not satisfy the first equation as y would be equal to 3, not 8. Option B: (-1,8) also does not satisfy the first equation as y would be equal to 1, not 8. Option C: (1,4) does not satisfy the second equation as y would be equal to 3, not 4. Therefore, option D is the only point that satisfies both equations and is the correct solution to the system.

**4. What is the solution set for the equation  $|3x - 5| = 17$ ?**

- A.  $\{-12, 22\}$
- B.  $\{12, 22\}$**
- C.  $\{-22, 12\}$
- D.  $\{-22, -12\}$

The solution set for the equation  $|3x - 5| = 17$  is B  $\{12, 22\}$ . This is because in order for  $|3x - 5|$  to equal 17, either  $3x - 5 = 17$  or  $3x - 5 = -17$ . Solving for x in both cases gives  $x = 12$  and  $x = 22$ . The other options, A, C, and D, are incorrect because they do not satisfy the given equation. For option A,  $\{-12, 22\}$ , when substituted into the equation, it gives  $|3(-12) - 5| = 41$ , which is not equal to 17. Similarly, options C and D also do not satisfy the equation, making them incorrect solutions.

**5. How much does  $6/7$  of a line measure?**

- A.  $11/14$**
- B.  $1/7$
- C.  $6/7$**
- D.  $7/6$

The correct answer is C. When we talk about a line, we are referring to the whole line. In this scenario, we are only looking to measure  $6/7$  of the line, which means we need to find 6 equal parts out of the total 7 parts. Therefore, the fraction representing this measurement is  $6/7$ . Option A,  $11/14$  is incorrect because it represents more than the desired amount. Option B,  $1/7$ , represents only one equal part of the line, which is not what we are looking for. Option D,  $7/6$ , would represent a line length longer than the actual line, which is not an accurate measurement. That is why option C,  $6/7$ , is the correct answer.

**6. What is the difference between the squares of the two numbers 4 and 8?**

- A. 16
- B. 32
- C. 64**
- D. 128

The question is asking for the difference between the squares of two numbers, not the square of the difference between two numbers. Option A is the square of 4, which is not what the question is asking for. Option B is the square of 8, and again, this is not what the question is asking for. Option D is the square of the difference between 4 and 8, which is not the same as the difference between the squares of 4 and 8. Therefore, the correct answer is option C, which is the difference between the squares of 4 and 8.

**7. Which is the solution of the equation  $2x^2 + 5x - 3 = 0$ ?**

- A. -2 and 3/2
- B. -2 and 0.6**
- C. 2 and -3/2
- D. 2 and -0.6

To solve this equation, we can use the quadratic formula  $(-b \pm \sqrt{b^2 - 4ac}) / 2a$ , where  $a$ ,  $b$ , and  $c$  are the coefficients of the equation. In this case,  $a = 2$ ,  $b = 5$ , and  $c = -3$ . Plugging these values into the formula, we get  $(-5 \pm \sqrt{5^2 - 4(2)(-3)}) / 2(2)$ , which simplifies to  $(-5 \pm \sqrt{25 + 24}) / 4$ . This gives us two possible solutions  $x = (-5 + \sqrt{49}) / 4 = -2$  and  $x = (-5 - \sqrt{49}) / 4 = 0.6$ . Therefore, the correct answer is B, as it includes both of these solutions. Option A is incorrect

**8. What is the equation of the line that passes through the point  $(-2, -1)$  and is parallel to  $y = 4x + 8$ ?**

- A.  $y = -4x - 7$
- B.  $y = -4x - 10$**
- C.  $y = 4x - 8$
- D.  $y = 4x - 10$

A parallel line has the same slope as the given line, which in this case is 4. The equation  $y = -4x - 7$  has a slope of -4, so it is not parallel. The equation  $y = 4x - 8$  has a different y-intercept, so it is also not parallel. The equation  $y = 4x - 10$  has the same slope and a y-intercept that is offset by -2, which is what we need to pass through the point  $(-2, -1)$ , making it the correct answer.

**9. Which of the following is not a factor of  $x^2 + 5x - 48$ ?**

- A.  $x - 4$
- B.  $x - 3$
- C.  $x + 8$**
- D.  $x + 9$

One approach to solving this question is to factor the given polynomial. This can be done by looking for two numbers that multiply to give the constant term -48 and add to give the coefficient of the middle term 5. For the polynomial given, the numbers are -3 and 8. These numbers correspond to the options B and C respectively. However, only C ( $x + 8$ ) is not a factor of the polynomial. Therefore, C is the correct answer. Options A ( $x - 4$ ) and D ( $x + 9$ ) are both factors of the polynomial since  $(-4)(12) = -48$  and  $(-3)(-16) = 48$ . Hence, these options are incorrect.

**10. What is the solution to the equation  $x^2 + 3x + 2 = 0$ ?**

- A. -1**
- B. 2**
- C. -2**
- D. 1**

The solution to the equation can be found by factoring the quadratic expression into two binomials  $(x + 2)(x + 1)$ . By setting each binomial equal to zero, we can find the values of  $x$  that satisfy the equation. Therefore, the solutions to  $x^2 + 3x + 2 = 0$  are  $x = -2$  and  $x = -1$ . Option B and D are incorrect because they only represent one of the solutions, rather than both. Option C is incorrect because it does not account for the coefficient of  $x^2$  in the equation.

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# 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](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://collegealgebraprepractice.examzify.com>**

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

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