

ARMED FORCES CLASSIFICATION TEST (AFCT) ARITHMETIC REASONING PRACTICE TEST (SAMPLE) STUDY GUIDE



Prepare with structure. Pass with confidence



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.

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. What is the difference between 100 and 37?
 - A. 63
 - B. 55
 - C. 67
 - D. 72
2. If you buy 5 pounds of apples at \$2 per pound, how much do you spend?
 - A. \$8
 - B. \$10
 - C. \$12
 - D. \$15
3. In a race with 10 participants, how many different ways can first, second, and third place be awarded?
 - A. 100 ways
 - B. 360 ways
 - C. 720 ways
 - D. 1000 ways
4. Which of the following is equivalent to the expression $3(4 + 2)$?
 - A. 18
 - B. 21
 - C. 24
 - D. 27
5. If you double a number and then subtract 10, and the result is 20, what was the original number?
 - A. 10
 - B. 15
 - C. 20
 - D. 25

6. What is the percent increase if a price goes from \$80 to \$100?
- A. 10%
 - B. 20%
 - C. 25%
 - D. 30%
7. If the temperature is 3 degrees Celsius at 8 am and drops by 9 degrees by noon, what is the temperature at noon?
- A. -7 degrees Celsius
 - B. 0 degrees Celsius
 - C. -6 degrees Celsius
 - D. 2 degrees Celsius
8. What is the total cost of buying 8 books at \$4 each?
- A. \$24
 - B. \$32
 - C. \$36
 - D. \$40
9. What is 25% of 480?
- A. 90
 - B. 100
 - C. 120
 - D. 150
10. A car sold for \$15,000 depreciates by 10% each year. What will it be worth after one year?
- A. \$11,000
 - B. \$12,000
 - C. \$13,500
 - D. \$14,000

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What is the difference between 100 and 37?

- A. 63**
- B. 55
- C. 67
- D. 72

To find the difference between 100 and 37, you simply need to perform subtraction. The calculation can be set up as follows: $100 - 37 = 63$. This shows that when you take 37 away from 100, you are left with 63. This method of finding the difference is a foundational arithmetic skill that involves understanding the relationship between the two numbers in question. In this case, the result of 63 is indeed the correct answer, as it accurately represents the positive difference derived from the subtraction. This process exemplifies how numerical values can be compared and the significance of difference in various contexts, such as measuring changes or determining quantities.

2. If you buy 5 pounds of apples at \$2 per pound, how much do you spend?

- A. \$8
- B. \$10**
- C. \$12
- D. \$15

To determine the total cost of buying 5 pounds of apples at \$2 per pound, you need to perform a straightforward multiplication. You multiply the price per pound by the number of pounds purchased: $\text{Total cost} = \text{Price per pound} \times \text{Number of pounds}$. $\text{Total cost} = \$2 \times 5 = \10 . Thus, the correct answer reflects that you will spend a total of \$10 for the apples. This calculation illustrates how to break down the cost based on weight and unit price, a common task in arithmetic reasoning.

3. In a race with 10 participants, how many different ways can first, second, and third place be awarded?

- A. 100 ways
- B. 360 ways
- C. 720 ways**
- D. 1000 ways

To determine how many different ways first, second, and third place can be awarded in a race with 10 participants, we need to think about how we can select and arrange these participants in the top three positions. We start by selecting a participant for first place. There are 10 participants available, so there are 10 choices for who can come in first. After the first-place winner is decided, we have 9 participants left to choose from for second place. Thus, there are 9 options for the second placement. Lastly, after determining the first and second place winners, there remain 8 participants for the third place, which gives us 8 options. To find the total number of combinations for the top three places, we multiply the number of choices for each position together: $10 \text{ (for first)} \times 9 \text{ (for second)} \times 8 \text{ (for third)} = 720$. This calculation shows that there are 720 different ways to award first, second, and third place among 10 participants, confirming that the correct answer aligns with option C. Understanding this process is helpful as it illustrates the concept of permutations, where the order of selection matters.

4. Which of the following is equivalent to the expression $3(4 + 2)$?

A. 18

B. 21

C. 24

D. 27

To determine which choice is equivalent to the expression $3(4 + 2)$, first, apply the arithmetic operation inside the parentheses. The expression inside the parentheses is $4 + 2$, which equals 6. Next, multiply this result by 3: $3 \times 6 = 18$. Thus, the expression $3(4 + 2)$ simplifies to 18. Since the choice indicating this result is not C, it looks like the answer selected does not correspond to the correct evaluation of the expression. The correct answer is actually 18, which shows how careful evaluation of expressions can lead to the right result.

5. If you double a number and then subtract 10, and the result is 20, what was the original number?

A. 10

B. 15

C. 20

D. 25

To find the original number, let's call it (x) . The process described in the question involves two steps: doubling the number and then subtracting 10. This can be expressed with the equation: $2x - 10 = 20$. To solve for (x) , first, you add 10 to both sides of the equation: $2x - 10 + 10 = 20 + 10$ $2x = 30$. Next, divide both sides of the equation by 2: $x = \frac{30}{2}$ $x = 15$. Thus, the original number is 15. This illustrates the importance of following the described process correctly—doubled then subtracted—to reach the correct answer efficiently. This demonstrates why 15 is the original number, as substituting it back into the original context (doubling it to get 30, and then subtracting 10 to arrive at 20) confirms it satisfies the condition presented in the question.

6. What is the percent increase if a price goes from \$80 to \$100?

A. 10%

B. 20%

C. 25%

D. 30%

To determine the percent increase when a price changes from \$80 to \$100, first calculate the amount of increase. This can be found by subtracting the original price from the new price: $\text{Increase} = \text{New Price} - \text{Original Price} = 100 - 80 = 20$. Next, you'll need to calculate the percent increase based on the original price. The formula for percent increase is: $\text{Percent Increase} = \left(\frac{\text{Increase}}{\text{Original Price}} \right) \times 100$. Plugging in the values: $\text{Percent Increase} = \left(\frac{20}{80} \right) \times 100 = 0.25 \times 100 = 25\%$. So, the correct answer reflects that the price increased by 25% from \$80 to \$100. The other options, such as 10%, 20%, and 30%, do not accurately represent the calculation for this specific change in price.

7. If the temperature is 3 degrees Celsius at 8 am and drops by 9 degrees by noon, what is the temperature at noon?

- A. -7 degrees Celsius
- B. 0 degrees Celsius
- C. -6 degrees Celsius**
- D. 2 degrees Celsius

To find the temperature at noon, you start with the initial temperature of 3 degrees Celsius at 8 am. Since the temperature drops by 9 degrees by noon, you need to subtract this decrease from the initial temperature. Starting with 3 degrees Celsius, you perform the calculation: $3 \text{ degrees Celsius} - 9 \text{ degrees} = -6 \text{ degrees Celsius}$. This result indicates that at noon, the temperature is -6 degrees Celsius. The choice that reflects this calculated temperature is indeed the correct answer. Understanding how to perform this simple subtraction is key in solving similar problems involving temperature changes or other arithmetic reasoning scenarios.

8. What is the total cost of buying 8 books at \$4 each?

- A. \$24
- B. \$32**
- C. \$36
- D. \$40

To determine the total cost of buying 8 books at a price of \$4 each, you can use multiplication. The cost of one book is \$4, and since you want to buy 8 books, you would multiply the price of one book by the total number of books: $\text{Total Cost} = \text{Number of Books} \times \text{Cost per Book}$. Substituting in the values gives: $\text{Total Cost} = 8 \times 4 = 32$. Thus, the total cost of buying 8 books at \$4 each is \$32, which corresponds to the correct answer choice.

9. What is 25% of 480?

- A. 90
- B. 100
- C. 120**
- D. 150

To determine what 25% of 480 is, you start by understanding that 25% can be converted to a fraction, which is $\frac{25}{100}$ or $\frac{1}{4}$. This means finding 25% of a number is equivalent to dividing that number by 4. Now, divide 480 by 4: $480 \div 4 = 120$. This calculation shows that 25% of 480 is indeed 120. Therefore, when evaluating the options, the correct answer reflects the accurate computation of how percentages work, particularly the concept of finding a quarter of a whole. Thus, 120 properly represents 25% of 480.

10. A car sold for \$15,000 depreciates by 10% each year. What will it be worth after one year?

- A. \$11,000
- B. \$12,000
- C. \$13,500**
- D. \$14,000

To calculate the value of the car after one year of depreciation, you start with the original price of the car, which is \$15,000. The car depreciates at a rate of 10% per year. First, you need to determine the amount of depreciation for one year: 10% of \$15,000 is found by multiplying \$15,000 by 0.10: $\$15,000 \times 0.10 = \$1,500$. This amount represents the decrease in value after one year. Now, to find the car's worth after one year, subtract the depreciation from the original price: $\$15,000 - \$1,500 = \$13,500$. This calculation shows that after one year, the car will be valued at \$13,500. This answer demonstrates the basic principle of depreciation in which a set percentage is deducted from the original value to determine the new worth of an asset over time.

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://afct-arithmeticreasoning.examzify.com>

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

SAMPLE