

ASVAB ARITHMETIC REASONING PRACTICE TEST (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. Which type of number can be divided evenly by itself and by 1, but not by any other number?**
 - A. Composite number
 - B. Prime number
 - C. Whole number
 - D. Negative number

- 2. Which angle type is exactly 90 degrees?**
 - A. Obtuse
 - B. Acute
 - C. Straight
 - D. Right

- 3. If a set contains the numbers 2, 3, 5, 7, and 11, what can you identify about these numbers?**
 - A. They are all composite numbers
 - B. They are all prime numbers
 - C. Some are composite and some are prime
 - D. They do not have any prime numbers

- 4. How many days are there in a leap year?**
 - A. 365 days
 - B. 366 days
 - C. 364 days
 - D. 370 days

- 5. If a car travels 300 miles in 5 hours, what is its average speed?**
 - A. 50 mph
 - B. 60 mph
 - C. 70 mph
 - D. 75 mph

6. If the train to Wichita travels at 55 mph, how far does it travel in 2 hours?
- A. 90 miles
 - B. 100 miles
 - C. 110 miles
 - D. 120 miles
7. What formula represents the volume of a cylinder?
- A. $3.14(r^2)$
 - B. $l \times w \times h$
 - C. $3.14(r^2)h$
 - D. $2\pi r$
8. What is the identity property of addition?
- A. $a + 1 = a$
 - B. $a + 0 = a$
 - C. $a + a = 2a$
 - D. $a + (-a) = 0$
9. What is the metric equivalent of 8 fluid ounces?
- A. 1 pint
 - B. 1 cup
 - C. 1 quart
 - D. 1 gallon
10. After Brett ate 25% of his jelly beans, he had 72 left. How many did he have originally?
- A. 90
 - B. 94
 - C. 95
 - D. 96

Answers

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

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Explanations

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1. Which type of number can be divided evenly by itself and by 1, but not by any other number?

- A. Composite number
- B. Prime number**
- C. Whole number
- D. Negative number

A prime number is defined as a natural number greater than 1 that has no positive divisors other than 1 and itself. This means that prime numbers can be divided evenly by only these two numbers. For instance, the number 5 can be divided by 1 and 5, yielding whole numbers (1 and 5), but it cannot be divided evenly by any other integers, such as 2, 3, or 4. On the other hand, composite numbers have more than two distinct positive divisors. For example, the number 6 can be divided evenly by 1, 2, 3, and 6, which disqualifies it from being considered a prime number. Whole numbers include both prime and composite numbers, as well as zero, which does not fit the definition of a prime number. Lastly, negative numbers can also be divided by 1 and themselves; however, they do not meet the requirement of being greater than 1, which is essential for identifying primes. Therefore, focusing on the property of being divisible only by 1 and itself confirms that the correct answer is a prime number.

2. Which angle type is exactly 90 degrees?

- A. Obtuse
- B. Acute
- C. Straight
- D. Right**

A right angle is defined as an angle that measures exactly 90 degrees. This is a foundational concept in geometry and is significant in various applications, including construction, carpentry, and design, where precise right angles are essential. Understanding the characteristics of different types of angles can help solidify why a right angle is distinctly defined. An obtuse angle measures more than 90 degrees but less than 180 degrees, indicating that it opens wider than a right angle. An acute angle, on the other hand, measures less than 90 degrees, meaning it is sharper than a right angle. A straight angle measures exactly 180 degrees, forming a straight line rather than a right angle. Thus, the only angle type that fits the definition of being exactly 90 degrees is a right angle. This specific measurement is fundamental in both mathematical theory and practical applications, making it crucial to recognize and understand its characteristics.

3. If a set contains the numbers 2, 3, 5, 7, and 11, what can you identify about these numbers?

- A. They are all composite numbers
- B. They are all prime numbers**
- C. Some are composite and some are prime
- D. They do not have any prime numbers

The set of numbers provided consists of 2, 3, 5, 7, and 11. All of these numbers share the characteristic of being prime numbers. A prime number is defined as a natural number greater than 1 that has no positive divisors other than 1 and itself. In this case: - The number 2 has divisors 1 and 2, making it prime. - The number 3 has divisors 1 and 3, making it prime. - The number 5 has divisors 1 and 5, making it prime. - The number 7 has divisors 1 and 7, making it prime. - The number 11 has divisors 1 and 11, making it prime. Since every number in the set meets the criteria for being prime, the conclusion that all of the numbers are prime is accurate. This directly supports the selection of the correct answer. In contrast, the other options do not hold true since: - Composite numbers are those that have divisors other than 1 and themselves, which does not apply to any of the numbers listed. - Since there are no composite numbers in the set, it cannot contain both composite and prime numbers

4. How many days are there in a leap year?

- A. 365 days
- B. 366 days**
- C. 364 days
- D. 370 days

A leap year contains 366 days. This occurs every four years in the Gregorian calendar to account for the extra approximately 0.25 days it takes for the Earth to orbit the sun each year. Normally, a year consists of 365 days, which is why the leap year adds one extra day, specifically February 29. This adjustment helps keep our calendar year synchronized with the astronomical year. The leap year rules help ensure that seasons remain aligned with the calendar. Thus, selecting the answer indicating 366 days accurately reflects the total number of days in a leap year.

5. If a car travels 300 miles in 5 hours, what is its average speed?

- A. 50 mph**
- B. 60 mph
- C. 70 mph
- D. 75 mph

To find the average speed of the car, you need to use the formula for average speed, which is the total distance traveled divided by the total time taken. In this case, the car travels a distance of 300 miles in a time of 5 hours. Calculating the average speed: $\text{Average Speed} = \text{Total Distance} / \text{Total Time}$ $\text{Average Speed} = 300 \text{ miles} / 5 \text{ hours}$ $\text{Average Speed} = 60 \text{ miles per hour (mph)}$ Thus, the average speed of the car is 60 mph, making this the correct answer. It's important to ensure that you divide the total distance by the total time to arrive at the correct average speed measurement.

6. If the train to Wichita travels at 55 mph, how far does it travel in 2 hours?

- A. 90 miles
- B. 100 miles
- C. 110 miles
- D. 120 miles

To determine how far the train travels in 2 hours at a speed of 55 miles per hour, you can use the formula for distance, which is: $\text{Distance} = \text{Speed} \times \text{Time}$. In this case, the speed is 55 miles per hour and the time traveled is 2 hours. Plugging the values into the formula gives: $\text{Distance} = 55 \text{ mph} \times 2 \text{ hours}$. Calculating this: $\text{Distance} = 110 \text{ miles}$. So, the train travels 110 miles in 2 hours. The answer that matches this calculation is 110 miles, making it the correct response. Understanding this approach helps reinforce the relationship between speed, time, and distance, which is a fundamental concept in solving various arithmetic reasoning problems.

7. What formula represents the volume of a cylinder?

- A. $3.14(r^2)$
- B. $l \times w \times h$
- C. $3.14(r^2)h$
- D. $2\pi r$

The formula that represents the volume of a cylinder is indeed $3.14(r^2)h$. This formula is derived from the geometric principles of a cylinder, which consists of two circular bases and a height. The volume of a cylinder can be thought of as the area of one of the circular bases multiplied by the height of the cylinder. The area of a circle is calculated using the formula πr^2 , where "r" is the radius of the circle. When you multiply this area by the height (h) of the cylinder, you arrive at the formula for the volume: $V = \pi r^2 h$. In this case, using 3.14 as an approximation for π allows for easier calculations. Therefore, the formula $3.14(r^2)h$ effectively captures the relationship between the radius, height, and the volume of the cylinder. This is why it represents the volume correctly and aligns with the mathematical principles governing three-dimensional shapes.

8. What is the identity property of addition?

- A. $a + 1 = a$
- B. $a + 0 = a$
- C. $a + a = 2a$
- D. $a + (-a) = 0$

The identity property of addition states that when you add zero to any number, the result is that same number. This means if you take a number, say "a", and add zero to it, you still have "a". In mathematical terms, this is represented as $a + 0 = a$. The concept here is that zero acts as an "identity element" in addition, meaning it does not change the value of the number it is added to. This property is foundational in arithmetic and algebra, as it confirms that zero does not affect the total when added to any number, highlighting its unique role in the number system. Recognizing this property is crucial for solving equations and understanding functions involving addition.

9. What is the metric equivalent of 8 fluid ounces?

- A. 1 pint
- B. 1 cup**
- C. 1 quart
- D. 1 gallon

To determine the metric equivalent of 8 fluid ounces, it's essential to understand the conversions between fluid ounces and cups in both metric and US customary units. In the United States, 8 fluid ounces is equal to 1 cup. This is a standard conversion metric, as there are 8 fluid ounces in a cup, making 1 cup the direct equivalent for this measurement. While other volume measurements in the options could seem plausible, they do not accurately represent the conversion from fluid ounces in this case. For instance, a pint consists of 16 fluid ounces, not fitting the 8 fluid ounces scenario; a quart consists of 32 fluid ounces; and a gallon is significantly larger, equating to 128 fluid ounces. Hence, these larger options do not meet the criteria set by the question. Thus, knowing that 8 fluid ounces directly converts to 1 cup supports the conclusion that this is the correct choice for identifying the metric equivalent.

10. After Brett ate 25% of his jelly beans, he had 72 left. How many did he have originally?

- A. 90
- B. 94
- C. 95
- D. 96**

*To find the original number of jelly beans Brett had, we can use the information given about the percentage he consumed and the amount left. Brett ate 25% of his jelly beans, which means he has 75% remaining. If 75% of the original amount is equal to 72 jelly beans, we can set up the equation: $0.75 * \text{Original Amount} = 72$. To find the original amount, we can isolate it by dividing both sides of the equation by 0.75: $\text{Original Amount} = 72 / 0.75$. Calculating this gives us: $\text{Original Amount} = 72 / 0.75 = 72 * (100/75) = 72 * (4/3) = 96$. Thus, Brett originally had 96 jelly beans. This calculation aligns with the correct answer provided, confirming that the original number of jelly beans Brett had is indeed 96.*

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://asvabarithmeticreasoning.examzify.com>

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

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