## STUDY GUIDE

## SAN ANTONIO ENTRY-LEVEL FIREFIGHTER EXAM (SAELFE)

## CONTENTS

Introduction .....  2
What exactly is the San Antonio Entry-Level Firefighter Exam? ..... 2
How did we develop this exam? ..... 2
How to use this study guide ..... 2
Chapter One: Test Basics ..... 4
Chapter Two: Cognitive Ability Groups ..... 5
Chapter Three: Language Ability ..... 5
Communication Questions: Definition and Sample Questions ..... 5
Chapter Four: Visualization Ability ..... 7
Spatial Orientation Questions: Definition and Sample Questions ..... 7
Selective Attention Questions: Definition and Sample Questions ..... 9
Visualization/Memorization Questions: Definition and Sample Questions ..... 13
Flexibility of Closure Questions: Definition and Sample Questions ..... 14
Chapter Five: Reasoning Ability ..... 14
Problem Sensitivity Questions: Definition and Sample Questions ..... 14
Deductive Reasoning Questions: Definition and Sample Questions ..... 15
Inductive Reasoning Questions: Definition and Sample Questions ..... 17
Information Gathering Questions: Definition and Sample Questions ..... 19
Chapter Six: Behavioral-Orientation Section ..... 21
Chapter Seven: Additional Test-Taking Strategies ..... 22

## Introduction

This study guide has been developed to introduce the San Antonio Entry-Level Firefighter Exam (SAELFE). If you read through this guide carefully, you will have a better understanding of what strategies will help you to prepare for the test. You will learn about the types of questions that may be asked on the test, and you will have an opportunity to practice answering those questions. Thank you for choosing our guide; we hope that it will serve as a valuable tool to help you achieve your goal of serving the community.

## What exactly is the San Antonio Entry-Level Firefighter Exam?

The SAELFE was designed to determine whether or not candidates possess the minimum competencies required for enrollment in training centers and for employment as firefighters. The types of abilities that will be assessed are discussed in Chapters Two through Five. Chapter Six will discuss the behaviororientation section of this exam.

## How did we develop this exam?

Job analysis, the in-depth study of a given job to determine the duties and specific tasks that employees in that job would be expected to perform, was a fundamental tool in the development of the test. Job analysis studies generally entail the gathering of many sources of information about a given job. These multiple forms of information provide us with a more realistic perspective of the occupation than any individual source of information.

To gain an understanding of what firefighters do on the job, how often they do these tasks and why, we sent two experienced job analysts to observe and note firefighters' actual behaviors, the equipment that they use, the tasks they perform and the analysts' perceptions of what they observed. Next, we interviewed a sample of firefighters in order to understand their perceptions. We asked them to provide a narrative description of their daily activities on the job as well as unusual or extraordinary situations that they have encountered. From the analysts' observations and the firefighters' responses, we then created lists of personality, psychological, physical and cognitive attribute requirements of the job, lists of global job requirements, lists of job duties, etc.

One particularly useful type of list that we used for this test development process was a task inventory. The task inventories enumerated all possible specific job tasks that must be performed by the worker on the job. We consulted with subject matter experts to review and modify the task inventory. From the task inventory, we created a job analysis questionnaire, which was completed by a sample of current employees in order to determine how often certain tasks are performed on the job and to rate the importance of these tasks.

After analyzing all of this data, we defined the categories of skills and abilities, such as language or visualization skills, that are required to successfully perform daily job duties. We then decided how many questions would be written for each category, based on how experts rated their relative importance. We then wrote the proper number of questions for each category.

The extensive work that we did in developing this exam means that you can be confident that your abilities will be assessed accurately and fairly.

## How to use this study guide

Chapter One of this study guide will give you basic information about how to take the SAELFE and instructions on completing your answer sheet. Read this information carefully so that you will know the instructions in advance. Thorough preparation for this exam will increase your self-confidence; selfconfidence in turn will increase your chances of getting a high score.

In Chapters Two through Five, you will learn about the different categories of questions that will appear on the test. The categories will be defined, and an explanation of how each category is important for the occupation of firefighter will be provided. You will also find sample questions from each category along with answer explanations. Read the definition of each category carefully and then try the sample questions. After you have answered the sample questions, check your answers with the corresponding answer explanation. Be sure to read all answer explanations carefully, even if you have answered the sample questions correctly. You could learn a lot from the answer explanations, and they may point out aspects of the questions that had not occurred to you previously.

Chapter Six will consist of a review of the behavioral-orientation section of this exam to orient you on how to best approach answering these questions.

Chapter Seven will consist of important test-taking strategies. By following these tips, you will be able to complete this exam more quickly and efficiently, and you will be able to improve your overall performance on the exam.

## Good luck to you as you take the San Antonio Entry-Level Firefighter Exam and best wishes for your future career in firefighting!

Important Note: Do not memorize the sample questions and answers. Any question that has been released will not be used again. You may run into questions that will be very similar, but you will not be tested with any of these exact questions. These questions will give you good practice, but they will not give you the answers to any of the questions on your exam.

## Chapter One: Test Basics

The SAELFE will consist of a 100 multiple-choice cognitive ability measure, and a 150 multiple-choice behavioral-orientation measure.

When you arrive at the examination site on the day of the test, you will need to follow the proper check-in procedures. Listen carefully to and follow all instructions. Any infraction of the rules will be considered cheating, and you will be dismissed from the test. The proctors will distribute the tests; DO NOT open the test booklets until you are told to do so. The examiner will read aloud instructions for filling in your answer sheet and taking the test. Listen carefully to these instructions and be sure to ask any questions that you may have so that you know exactly what to do.

The examiner will explain to you how to fill in your answer sheet, but it is helpful for you to know what to do before you take the exam. Your answer sheet will be separate from your test booklet. When the examiner tells you to do so, write your last name, first name and middle initial in the appropriate box followed by the exam rank, book number and the date of the exam.

You will also be instructed to fill in the lotto number (assigned the day of the exam), last four digits of your social security number and all nine digits of your social security number. For these categories, you will have to write numbers in boxes and then fill in the corresponding circles underneath each number.

You will have three (3) hours and fifteen (15) minutes to complete the entire exam. This was determined from a normal administration time of two and a half hours ( $21 / 2$ ) given for the cognitive section plus 45 minutes given for the behavioral-orientation section. There will be no break between these sections, and there will be no separate time limit. You'll be given the full time of three (3) hours and fifteen (15) minutes to complete both sections. Be sure to pace yourself so that you can complete the entire exam. If you finish early, use the extra time to look over your work and check your answers. There is no bonus for finishing early, so we recommend that you use all of your time to perfect your exam. On the day of the exam, your answer sheet will be collected and sent to I/O Solutions for grading. The San Antonio Fire Department will post all grades on their website $4-6$ weeks after the test.

## Important notes:

Since your answer sheet will be machine-scored, it is vital that you fill out your answer sheet clearly and correctly. If your answer sheet is marked incorrectly, you may not receive credit for correct answers.

When you are filling in circles, blacken your answer space firmly and completely (e.g., •). This is the only way to correctly mark the answer sheet.

If you mark the answer space with $\varnothing, \mathbf{\omega}, \otimes$ or ( $\checkmark$ ), the machine will not be able to read your answer.

Mark only one answer for each question. If you mark more than one answer, your responses will be marked as incorrect, even if one of them is correct.

If you decide to change an answer, make sure to erase your mark completely. An incomplete erasure may be read as a second answer, and your response will be marked as incorrect.

Only the answer sheet will be scored; be sure to mark all of your answers on the answer sheet. Correct answers written in the test booklet will not count.

Most importantly, make sure that each response has been marked in the correct space. Question 1 must be in space 1 ; question 42 in space 42. If you accidentally skip a line and mark answers in the wrong places, you must erase all of the incorrect responses and mark your answers again in the correct spaces. Because you only have a limited time in which to complete the San Antonio Entry-Level Firefighter Exam, be sure to look at the number of the question and ensure that you are marking the space with the same number for each question.

## Chapter Two: Cognitive Ability Groups

On the SAELFE, we may assess your competency in any of these areas:

- Communication
- Spatial Orientation
- Selective Attention
- Visualization/Memorization
- Flexibility of Closure
- Inductive Reasoning
- Deductive Reasoning
- Information Gathering
- Problem Sensitivity

For ease of discussion, the above areas have been grouped together into three chapters based upon their relative similarity:

- Language Skills
- Visualization Skills
- Reasoning Skills

Definitions of each of these competencies, as well as definitions and examples of the types of questions that may measure your proficiency in each of these competency areas, will follow in the next three chapters.

## Chapter Three: Language Ability

On the SAELFE, we will assess your language ability-your ability to communicate with others through speech and writing as well as your ability to understand written material. Your language competency may be measured with the following type of questions:

- Communication


## Communication Questions: Definition and Sample Questions

Our subject matter experts have defined "communication" as the ability to understand language (either written or spoken) and use language (either verbal or written) to communicate information or ideas to other people. Firefighters use this ability when reading narrative material such as an incident report or the fire safety code, listening to descriptions of events, places or people, receiving radio communications, giving radio communications, and interacting with the public.

For communication questions, you may be given a passage to read and then be asked to answer questions that ask you to recall details from the passage and the meaning of the passage. You may also be asked to choose correctly spelled words, detect misspellings in a sentence, and choose words or phrases that will be grammatically correct in the context of a sentence.

## Communication Sample Question 1

Please use the information in the following passage to answer communication sample question 1.

1. Engine 25 was dispatched at $8: 10$ a.m. to assist an elderly woman who was complaining of chest pains. Firefighter Heine and Valdez exited the engine immediately upon arrival and approached the apartment building. When Firefighter Valdez knocked on the door, a man and woman greeted her. The man identified himself as Mr. Miyamoto. The woman said that she was a neighbor. Mr. Miyamoto led the firefighters through the entry hall into the living room where Mrs. Miyamoto was lying on the sofa. The
neighbor walked through the study and into the kitchen to get Mrs. Miyamoto a glass of water. Mrs. Miyamoto appeared pale and was obviously in pain. Both firefighters knew Mrs. Miyamoto. This was the third time they had responded to a 911 call at this address. The first two calls had been for heart-related problems. They took her to the hospital a few minutes later.

The room where Mrs. Miyamoto was found by firefighters was the $\qquad$ .
a. entry hall
b. living room
c. kitchen
d. bedroom

The correct answer to communication sample question 1 is (b), "living room" because that is the location where Mrs. Miyamoto was lying on the sofa. Answers (a), (c) and (d) are incorrect. Firefighter Valdez was greeted in the entry hall, the neighbor walked to the kitchen to get Mrs. Miyamoto a glass of water and the bedroom was not mentioned in the passage.

## Communication Sample Question 2

## For sample question 2, identify which one of the underlined words is spelled incorrectly.

The lungs and respiratory tract are more vulnerable to injury than any other body area. Gases asociated with fires are dangerous and must not be inhaled.
a. respiratory
b. vulnerable
c. asociated
d. dangerous

The correct answer to sample questions 2 is (c), "asociated". All the other words are spelled correctly.

## Communication Sample Question 3

For sample question 3, please choose the appropriate word or phrase to complete the following sentence.

As the firefighters arrived at the fire scene, they $\qquad$ the building very carefully.
a. search
b. searched
c. searches
d. will search

The correct answer to communication sample question 3 is (b) "searched" because the simple past tense is required in this sentence. You can tell that the simple past tense is required in this instance because the firefighters arrived and searched the building at the same time in the past. Answers (a), (c) and (d) are incorrect. "Search" is incorrect because it is in the present tense. "Searches" is incorrect because it is in the present tense and also because "searches" requires a singular subject (e.g., "He searches.") rather than a plural subject (e.g.,"They search."). "Will search" is incorrect because it is in the future tense.

## Tips to help you improve your communication abilities:

Before the test day, read entire newspaper articles for practice. Underline important details and ideas and notice different points of view and types of supporting evidence. After you have finished the article, try to summarize the main point of the article and the different arguments that may have been presented. Look over the words and sentences you have underlined. Were they the most important words and ideas? As you continue to practice this exercise, you will become a more efficient reader and you will read with greater comprehension.

One strategy you may find helpful is to read the questions before you read the selection. The questions will tell you what important details you need to notice as you read the passage.

Make sure that you read each question very carefully. Many candidates make mistakes on communication questions because they misunderstand the question.

Read all of the answer choices carefully. Try to eliminate incorrect answers until you are left with only one possible answer. If you have more than one possible answer, reread the passage.

In addition, as you read newspaper articles for practice, make a list of unfamiliar words. Afterwards, look up these words in a dictionary and write down their definitions in a special notebook. By writing down these words and their definitions, you will be able to remember them more easily.

If you are not familiar with terms such as "singular," "plural," "active voice" and "passive voice," we recommend that you consult a good grammar guide, such as Gerald P. Mulderig's The Heath Handbook, so that you are able to analyze the sentences in the test questions to understand what elements are required to complete the sentence grammatically.

## Chapter Four: Visualization Ability

On the SAELFE, we will test your visualization ability-your ability to perceive images, understand maps and plan routes based on those maps, and notice visual details. Your visualization competency may be measured with the following types of questions:

- Spatial Orientation
- Selective Attention
- Visualization/Memorization
- Flexibility of Closure


## Spatial Orientation Questions: Definition and Sample Questions

Spatial orientation questions are designed to evaluate your ability to tell where you are in relation to the location of some object or to tell where the object is in relation to you. This skill involves maintaining directional orientation in one's bearings with respect to the points of a compass and allows one to stay oriented in a vehicle as it changes direction and location. Firefighters use this ability when they have to reach a destination in a community. They have to be able to visualize where they are in relation to their destination to determine the best route.

On this exam, you may be provided with a map and a compass. You will then be given a situation in which you must determine the shortest (least distance) route from one location on the map to another. Alternately, you may be tested on where one object is in relation to another.

Please use the following map to answer spatial orientation sample questions 1 and 2.

## The City of Geneva



1. Engine 14 is at the fire station at the corner of Oak Street and Lyon Avenue. They receive a call to report to the site of a fire at Allison Lane and Forest Preserve Road. What would be the quickest (least distance) route for them to take in order to reach the site of the fire?
a. Travel east on Oak Street, then north on Bellview Terrace, then east on Allison Lane.
b. Travel west on Oak Street, then north on Oz Lane, then east and southeast on Elm Street, then southwest on Loop Street.
c. Travel east on Oak Street, then northeast on Allison Lane.
d. Travel west on Oak Street, then north on Oz Lane, then east on Maple Street, then south on Bellview Terrace, and east on Allison Lane.

The correct answer to spatial orientation sample question number 1 is (a) "Travel east on Oak Street, then north on Bellview Terrace, then east on Allison Lane" because that is the route that covers the least distance from the starting point to the final destination. Answers (b), (c) and (d) are all incorrect. If you travel west on Oak Street, then north on Oz Lane, then southeast on Elm Street, then southwest on Loop Street, you are not only taking a longer route than (a), but you will also not reach the intersection of Allison Lane and Forest Preserve Road unless you travel further east on Allison Lane. Because Allison Lane only runs east-west, you will not be able to travel northeast on Allison Lane. Finally, if you travel west on Oak Street, then north on Oz Lane, then east on Maple Street, then south on Bellview Terrace, then east on Allison Lane, you will not be taking the shortest route.
2. A fire is in progress at the Glenwood Forest Preserve. Engine 14 is currently at the corner of Elm Street and Oz Lane. What would be the shortest (least distance) route for Engine 14 to travel in order to reach the north side of the Glenwood Forest Preserve?
a. Travel south on Oz Lane, then east on Oak Street, then north on Bellview Terrace, then east on Allison Lane, then south on Forest Preserve Road.
b. Travel east on Elm Street, then south on Bellview Terrace.
c. Travel east and then southeast on Elm Street, then southwest on Loop Street.
d. Travel south on Oz Lane, then west on Maple Street, then south on Bellview Terrace, then east on Allison Lane.

The correct answer to spatial orientation sample question 2 is (c) "Travel east and then southeast on Elm Street, then southwest on Loop Street" because that is the shortest of the four routes listed. Answers (a), (b) and (d) are all incorrect. If engine 14 travels south on Oz Lane, then east on Oak Street, then north on Bellview Terrace, then east on Allison Lane, then south on Forest Preserve Road, engine 14 is not only taking a longer route, but it will also end up on the east side of the forest preserve when it is supposed to report to the north side. If engine 14 travels east on Elm Street and south on Bellview Terrace, it will end up on the west side of the forest preserve. If engine 14 travels west on Maple Street, it will not reach Bellview Terrace and Allison Lane.

## Tips to help you improve your spatial orientation abilities:

As with previous question categories, read the maps and situations very carefully. Occasionally you will learn in the passages provided that certain streets are one-way only or that traffic flows more slowly on certain roads due to construction or other conditions. Take these factors into account when choosing the best possible route.

Practice your spatial orientation skills with other types of maps. Figure out the best way to reach one destination from another. Make this activity challenging by placing obstacles on certain paths. Imagine that a certain road has been blocked by the police, for example. What would be the shortest route to your destination while avoiding this obstacle?

## Selective Attention Questions: Definition and Sample Questions

Selective attention questions are designed to test your ability to concentrate on a task without getting distracted by external stimuli. Firefighters use this ability when performing a security check in a building when a lot of commotion is taking place.

On the SAELFE, you may be given a series of letters, numbers and symbols. You will be asked to choose the option that contains the exact pattern of letters, numbers and symbols.

## Selective Attention Sample Question 1

Selective attention sample question 1 contains a set of letters, symbols and numbers. Please choose ONLY THE ONE option that contains the exact pattern of letters, symbols, numbers and spaces as the original set.

1. $\quad \vartheta \wedge \wedge \wedge \mid \Downarrow \Rightarrow \Rightarrow \Omega * \neg f \Gamma \zeta$ ?
a. $\quad \vartheta \wedge \wedge \wedge \mid \Downarrow \Leftarrow \Leftarrow \star f \Gamma \varsigma$ ?
b. $\quad \vartheta \wedge \wedge \wedge \mid \Downarrow \Rightarrow \Rightarrow \Omega \vee \& f \varsigma$ ?
c. $\quad \vartheta \wedge \wedge \wedge \mid \Downarrow \Rightarrow \Rightarrow \Omega \diamond \backsim f \Gamma \zeta$ ?
d. $\quad \vartheta \wedge \wedge \wedge \mid \Downarrow \Rightarrow \Rightarrow \Omega \diamond$ \&f $\Gamma \varsigma$ ?

The correct answer to selective attention sample question 1 is (c) because option (c) contains the exact pattern of letters, symbols, numbers and spaces as the original set. Answers (a), (b) and (d) are all incorrect. In option (a), the arrows $(\Leftarrow \Leftarrow)$ are pointed to the left instead of to the right, as they are in the
original set. In option (b), there is a heart $(\boldsymbol{\bullet})$ instead of a diamond ( $\bullet$ ). In option (d), the "f" is not in italics. Also, there is an extra space between the " $f$ " and the " $\Gamma$ " in option (d).

## Selective Attention Sample Question 2

Selective attention sample question 2 contains a set of letters, symbols and numbers. Please choose ONLY THE ONE option that contains the exact pattern of letters, symbols, numbers and spaces as the original set.
2.,$+ ; B \Delta \Delta \sqrt{ } \approx \neq ? ? \varnothing \oplus \cap \leftrightarrow \Lambda$
a. $+;,, \mathrm{B} \Delta \Delta \sqrt{ } \approx \neq ? ? \varnothing \oplus \cap \leftrightarrow \mathrm{~A}$
b. $\quad+, ; B \Delta \Delta \sqrt{ } \approx \neq ? ? \varnothing \oplus \cap \Leftrightarrow \Lambda$
c. $\quad+, ; B \Delta \Delta \sqrt{ } \approx \neq ? ? \varnothing \otimes \cap \leftrightarrow \Lambda$
d. $\quad+, ; B \Delta \Delta \sqrt{ } \approx \neq ? ? \varnothing \oplus \cap \leftrightarrow \Lambda$

The correct answer to selective attention sample question 2 is (d) because option (d) contains the exact pattern of letters, symbols, numbers and spaces as the original set. Answers (a), (b) and (c) are all incorrect. In option (a), the comma (,) and the semicolon (;) are mixed up at the beginning. Also, at the end of option (a), there is an A instead of a $\Lambda$. In option (b), there is a $\Leftrightarrow$ instead of $a \leftrightarrow$. In option (c), there is $\mathrm{a} \otimes$ instead of $\mathrm{a} \oplus$.

## Tips to help you improve your selective attention skills:

Be sure to allow yourself enough time to complete this portion of the test. We aren't kidding when we say you'll have to pay attention! Note the exact placement of the letters, symbols and spaces.
Occasionally they will be in the wrong order, or another similar-looking character will be substituted for one of the letters or symbols. Semicolons (;) often look like colons (:). It is important to note if a letter is set in italics or is capitalized. Only one answer on the test will be correct, so look carefully!

Look at addresses, serial numbers or phone numbers. Can you copy them down exactly?
Try typing a random set of characters on your computer. Put this original set away for a while. Return to it later and, below the original set, try to draw (or type) the exact same pattern of letters and numbers.

## Visualization/Memorization Questions: Definition and Sample Questions

Visualization/memorization questions are designed to assess your ability to recall specific information upon request and to remember details. Firefighters use this ability to remember important information presented in shift briefings, rules and guidelines. Firefighters will also use this ability when searching a building for people.

On SAELFE visualization/memorization questions, you will be presented with several color photographs in a separate booklet. You will have a predetermined number of minutes to study those photographs. Once the predetermined number of minutes has elapsed, you will be given a second booklet that contains questions related to the photographs you have just memorized as well as the remaining questions related to the other dimensions. You will not be allowed to look back at the pictures while you are answering the questions.

## Visualization/Memorization Sample Questions 1 and 2

You are about to answer two practice memorization questions. This process will involve two steps. In step one (1), you will be given two (2) minutes to observe the picture below and to memorize any and all possible information provided in the picture. In step two (2), you will answer the two practice questions regarding the information in the picture you just observed. In order to practice for the actual exam, we recommend that you do not look back at the picture while you are answering the practice questions.


1. What is the color of the front door?
a. White
b. Black
c. Gray
d. Blue
2. On the first floor, how many window(s) can be seen on the side of the house?
a. Zero
b. One
c. Two
d. Three

The correct answer to memorization sample question 1 is (d) because the front door is blue.
The correct answer to memorization sample question 2 is (b) because only one window can be seen on the side of the house on the first floor.

## Tips for improving your memorization skills

Practice on your own by studying a picture for no more than two minutes. Then try to describe everything you observed in the picture or have someone else ask you questions about the picture. Try to answer the questions without looking at the picture because you will not be able to look back at the picture on the actual exam. It would be best to use a picture that you have never seen before, such as a picture from a newspaper or magazine.

## Flexibility of Closure Questions: Definition and Sample Questions

This ability involves finding an object that is somehow hidden within a group of other objects. This would involve picking out an object in a room. In this case, the individual knows what he/she is looking for; the task is to identify the one pattern that is buried in a larger pattern.

When you take the SAELFE, you may be asked to identify which shape is part of a larger shape.
Flexibility of Closure Sample Question 1


Which of the shapes below is exactly contained in the figure above?

A
B
C
D

The correct answer is (a). Shapes $\mathbf{b}, \mathbf{c}$ and $\mathbf{d}$ are not part of the figure.
Flexibility of Closure Sample Question 2


Which of the shapes below is exactly contained in the figure above?

A

B

C

D

The correct answer is (b). Shapes a, c and d are not part of the figure.

## Chapter Five: Reasoning Ability

When you take the exam, you will answer questions designed to measure your reasoning ability-your ability to sense and solve problems, to apply rules to specific situations, to form conclusions, and to understand the order and arrangement of events and rules. Your reasoning competency may be assessed with the following types of questions:

- Problem Sensitivity
- Deductive Reasoning
- Inductive Reasoning
- Information Gathering


## Problem Sensitivity Questions: Definition and Sample Questions

Problem sensitivity is the ability to recognize or identify the existence of problems. It involves both the recognition of the problem as a whole and the elements of the problem. Problem sensitivity does not include the ability to solve the problem, only the ability to identify or recognize it. An example might be the identification of interpersonal conflict within the firehouse.

For SAELFE problem sensitivity questions, you may be asked to read a short passage. You will then have to determine what is most likely to be the main problem in the situation that is presented in the passage. You may also be asked to determine what problem would most likely arise from the conditions presented in the passage or what you would do to address the problem.

## Problem Sensitivity Sample Question 1

Firefighter Perez has been observing the behavior and attitude of Firefighter Swartz, the new man recently assigned to the company. Perez has noticed that Swartz is usually cheerful and happy but on occasion will appear to be restless and nervous. Perez attributed the mood swings to problems at home but began to wonder when Swartz's behavior started to vary during the shift. One day, when Swartz was acting particularly restless, Perez asked Swartz if everything was okay in his personal life. Swartz told Perez to mind his own business. Several hours later, Swartz, appearing much more relaxed, approached Perez and apologized for being rude. He assured Perez that everything was okay at home and that there were no problems whatsoever. Perez was not convinced.

1. Based on the information given in the paragraph, if Swartz were having a problem, it would most likely be $\qquad$ .
a. financial
b. health-related
c. drug-related
d. related to his children

The best answer to problem sensitivity sample question 1 is (c) "drug-related". Answers (a), (b) and (d) are all incorrect. Firefighter Swartz is restless and nervous, and his mood swings also happen during the shift.

## Problem Sensitivity Sample Question 2

2. You are a firefighter. At the beginning of your shift, your supervisor gives you instructions that you do not understand. What would be the first step you should take to solve this problem?
a. You should ask the supervisor to repeat the unclear instructions.
b. You should ask another coworker for assistance.
c. Follow only the parts of the instructions that you understand perfectly.
d. Try to complete the task as best as you can and ask the supervisor if you did the task correctly at the end of your shift.

The best answer to problem sensitivity sample question 2 is (a) "You should ask the supervisor to repeat the unclear instructions." It is vital that you know what is required of you at all times during your shift. If you ask the supervisor to repeat the instructions, you will be able to follow those instructions accurately and efficiently. Answers (b), (c), and (d) are all incorrect. A coworker may not know what the supervisor wants you to do, so it would be best to ask the supervisor directly. If you only follow the parts of the instructions that you understand perfectly, you may neglect an important aspect of the task. Finally, it would simply be inefficient (and perhaps even dangerous!) to try to complete the task without understanding the instructions and waiting until the end of the shift to have a supervisor check on your progress. It is essential that you communicate clearly with your supervisor; therefore, (a) is the only correct answer.

## Tips for improving your problem sensitivity abilities:

You will need to rely on your common sense to answer most of these questions. But make sure that you read the situation carefully and look for important details. Carefully examine the answers and make sure that you pick the answer that relates most closely to the details presented in the passage. For example, in problem sensitivity sample question 1 , the passage does not mention children. Thus you can safely eliminate (d), which names children as the man's main problem.

If you are asked to imagine what would be the first step you would take to solve a problem, you may find it helpful to imagine the consequences that would arise if you followed each answer choice. For example, in problem sensitivity sample question 2, if you followed (b) and asked another coworker for assistance, you could easily imagine the coworker not having a complete knowledge of what the supervisor wants you to do, and the coworker could give you incomplete or false instructions. If you imagine the consequences of each answer choice, you will see that (a) is the only sensible answer to this question.

## Deductive Reasoning Questions: Definition and Sample Questions

When you take the exam, you will encounter deductive reasoning questions, which will measure your ability to apply general rules to specific problems in order to reach a logical conclusion. An example might be the decision to use one chemical or mechanical fire-extinguishing agent over another or one medication over another.

On the exam, you may be asked to read a passage that explains guidelines or policies. You will then be given a specific situation related to the policies or guidelines, and you will have to decide the best course of action based on what you know from the passage.

## Deductive Reasoning Sample Questions 1 and 2

## Please use the information in the following passage to answer deductive reasoning sample question 1 and 2.

The following is a list of the six most common categories of medications that are relevant to patient care:
Analgesics: prescribed for temporary pain relief, fever control and reduction of inflammation.
Anti-arrhythmics: prescribed for the treatment of heart rhythm disorders.
Anti-convulsants: prescribed for prevention and control of seizures.

Anti-diabetic agents: prescribed to help maintain healthy blood-sugar levels in hypoglycemic (low blood sugar) patients and to provide insulin, which allows the body to regulate the body's metabolism of sugar.

Anti-hypertensives: prescribed for the reduction of high blood pressure by relaxing the sympathetic nervous system, which in turn relaxes the walls of the arteries and arterioles.

Bronchodilators: prescribed to provide relief of bronchial asthma and other allergies affecting the respiratory system by relaxing the smooth muscles of the bronchial tubes.

1. According to the medications described above, if a person were having trouble breathing due to dust and pollen, what category of medication would be prescribed?
a. Analgesics
b. Anti-arrhythimics
c. Anti-convulsants
d. Bronchodilators

The correct answer is (d). Bronchodilators are the only medications prescribed to relieve allergies (e.g., dust and pollen).
2. On a windy fall day, a child playing at recess sprains her right ankle. The school nurse would prescribe
$\qquad$ to treat the child.
a. analgesics
b. anti-arrhythmics
c. anti-convulsants
d. anti-hypertensives

The correct answer is (a). Analgesics are the only medications prescribed for pain relief and inflammation.

## Tips for improving your deductive reasoning abilities:

Be sure to read carefully both the policies and the questions. Occasionally there will be irrelevant details in both the general policies and the specific situations, so make sure to carefully match up important details and disregard the information that does not help you answer the question.

You may be able to practice your deductive reasoning skills by looking at a set of rules or policies. They could be school regulations, office policies at your current job, city ordinances, etc. Try to imagine situations in which a person could either follow or violate the rule. What parts of the rule(s) would you cite if you had to defend someone or issue a citation?

## Inductive Reasoning Questions: Definition and Sample Questions

Inductive reasoning questions assess your ability to combine separate pieces of information or to use specific details to form general rules or conclusions. Inductive reasoning is the ability to find a rule or concept that fits the situation. It also involves understanding how a string of events might be connected. One example of this ability is determining the point of origin of a fire or finding repeated violations of a fire code during building inspections.

On the exam, you may be given a passage to read or a table/graph to interpret. You will be asked to make general conclusions based on the information provided and what trends you notice.

## Inductive Reasoning Sample Question 1

A drunk driver barreling down Washington Street runs through a four-way stop intersection and strikes the side of a minivan traveling through the intersection, pushing it into a car parked on the side of the street. Four people call 911. The area dispatch center alerts police, emergency medical service and fire-rescue units simultaneously.

Firefighters arrive on the scene and proceed to assess the situation. They examine the scene, the vehicles and their drivers. The drunk driver is sitting in her car holding her forehead, and blood is oozing through her fingers. A man is trapped in the minivan that was hit broadside. He was not wearing a seatbelt. He appears to be unconscious, but there is no apparent bleeding. A firefighter determines that there is some swelling in his chest and abdomen, and from the angle of his left arm, it appears that it is broken. The firefighter also suspects possible internal injuries. The man must be removed from the minivan immediately.

A firefighter gains access to the minivan through a side door and begins to assess the condition of the man more closely. After initial stabilization, the firefighter covers him with a blanket to protect him from breaking glass while two other firefighters begin to cut out the windshield. After the man is safely extricated from the minivan through the windshield, he is transported to the local trauma center for further assessment and treatment of his injuries.

The drunk driver also receives attention. The firefighter assesses her injuries and general physical condition. Other than the wound on her forehead, there are no apparent injuries. However, one pupil is dilated. The firefighter suspects this woman has suffered a serious head injury. She is immediately placed on a gurney and transported to the trauma center.

1. Most likely, what injury of the minivan driver indicates internal bleeding?
a. Slurred speech.
b. One dilated pupil.
c. Swelling of the abdomen.
d. Broken leg.

The correct answer to inductive reasoning sample question 1 is (c). The driver of the minivan suffered from a broken arm and swelling of the abdomen, so answer $\mathbf{a}, \mathbf{b}$ and $\mathbf{d}$ are not possible.

## Use the following pie charts to answer inductive reasoning sample question 2.

## Full-Time Firefighters per County in 1998



Full-Time Firefighters per County in 2000

2. Which of the following conclusions can be drawn from the pie charts above?
I. The number of counties where the percentage of full-time firefighting staff increased from 1998 to 2000 is greater than the number of counties where the percentage of full-time firefighting staff decreased from 1998 to 2000.
II. The number of counties where the percentage of full-time firefighting staff decreased from 1998 to 2000 is greater than the number of counties where the percentage of fulltime firefighting staff increased from 1998 to 2000.
III. Travis County had the greatest percentage of full-time firefighters in both 1998 and 2000.
a. I only
b. II only
c. III only
d. II and III

The correct answer to inductive reasoning sample question 2 is (d) II and III because statements II and III are both valid. Three counties had a decrease in their percentage of full-time firefighting staff from 1998 to 2000; two counties had an increase in their percentage of full-time firefighting staff from 1998 to 2000; one county had the same percentage in both years. Also, Travis County had the biggest percentage of full-time firefighters in both years. Answers (a), (b) and (c) are all incorrect. Statement I is incorrect because more counties decreased rather than increased their percentage of full-time firefighting staff. Although statement II is correct, it is not the only conclusion that is valid. Similarly, statement III is correct, but it is not the only valid conclusion.

## Tips for improving your inductive reasoning abilities:

Be sure to examine carefully every aspect of the charts or graphs provided and every part of the answer options. If you misread a number or a label, you obviously will not be able to reach the correct conclusion.

You can practice your inductive reasoning skills by looking through a newspaper or a magazine for a chart or graph. Instead of reading the article or an explanation of the chart or graph, try forming your own conclusions about the data. Then read the article to see if you have reached a valid conclusion.

## Information Gathering Questions: Definition and Sample Questions

Information gathering questions will measure your ability to follow correctly a rule or set of rules in order to arrange things or actions in a certain order. The things or actions must be put in order and may include numbers, letters, words, pictures, procedures, sentences and logical operations. Firefighters may use this ability when applying first aid or following a procedure in operating equipment.

On the exam, some of the information gathering questions you will encounter may ask you to place five or six statements in either chronological or logical order. The statements could be part of a set of first-aid instructions or parts of policies or laws. You may also encounter a passage featuring several witnesses' statements and be asked to link information between the different witnesses.

## Information Gathering Sample Question 1

## Please use the following information to answer information gathering sample question 1.

Firefighter Hill has just finished interviewing the victim of an arson. The following six statements appear in her account of the incident.

1. When I heard a loud pounding on our front door, I looked through the living room window and saw Charles Dixon, a friend of my boyfriend, standing outside.
2. After refusing to open the door, I heard Charles walking away.
3. I didn't want to answer the door because I knew that Charles was very angry with my boyfriend, and he had threatened us several times over the phone.
4. Charles told me to open the door or he would set the house on fire.
5. I still refused to open the door because I was afraid that he would hurt me.
6. A neighbor saw Charles lighting the house on fire on the way back to his car.
7. What is the most logical order of these statements?
a. $\quad 6,1,3,5,4,2$
b. $\quad 2,4,5,3,1,6$
c. $\quad 1,3,4,5,2,6$
d. $\quad 4,3,5,2,6,1$

The correct answer to information gathering sample question 1 is (c) 1, 3, 4, 5, 2, 6. Answers (a), (b) and (d) are all incorrect. The statements should read as follows: (1) When I heard a loud pounding on our front door, I looked through the living room window and saw Charles Dixon, a friend of my boyfriend, standing outside. (3) I didn't want to answer the door because I knew that Charles was very angry with my boyfriend, and he had threatened us several times. (4) Charles told me to open the door or he would set the house on fire. (5) I still refused to open the door because I was afraid that he would hurt me (2)

After refusing to open the door, I heard Charles walking away. (6) A neighbor saw Charles lighting the house on fire on the way back to his car.

## Information Gathering Sample Question 2

The following are the statements of witnesses concerning four different fires.
Witness 1: John Smith was on his way home when he noticed a young man running away from a building. A moment later he noticed the building on fire. The young man was tall and very thin.
Witness 2: Helena Jones was putting groceries away when she looked out her kitchen window and saw the house across the street on fire. She ran to the front door and noticed a group of teenagers running in the opposite direction.
Witness 3: Ronald Stewart was working in his yard when he saw flames coming from an office window. He then saw a man in his forties quickly driving away in his car.
Witness 4: Christina Martinez was going to the bank when she was stopped by a woman screaming that her house was on fire. As she looked through her car mirror, she noticed a tall young man running away.
2. Based on the information provided, who most likely saw the same arsonist?
a. John Smith and Helena Jones
b. Christina Martinez and John Smith
c. Helena Jones and Christina Martinez
d. Ronald Stewart and John Smith

The correct answer to information gathering sample question 2 is (b) "Christina Martinez and John Smith" because they both saw a young tall man running away. Answers (a), (c) and (d) are all incorrect. Helena Jones saw a group of teenagers, and Ronald Stewart saw a man in his forties.

## Tips to help you improve your information gathering skills:

Look for word clues in the statements, such as "before" and "after." See if any of the statements pair up in some way. For example, in information gathering sample question 1 , the victim indicates that she heard a loud pounding on her door. The following statement reads, "I didn't want to answer the door..."

To practice information gathering, obtain a copy of a policy, a recipe, assembly instructions-something that clearly must be done in a certain order. Cut out the individual steps or instructions; mix them up and then see if you can rearrange them so that they are once again in their original, or most logical, order.

## Chapter Six: Behavioral-Orientation Section

The behavioral-orientation section of the exam is different than the cognitive section. There are no obvious "correct" or "incorrect" responses to these types of items as there are for the cognitive questions. The goal of the behavioral-orientation component is to compare your attitudes and behavioral characteristics to those of successful firefighters in San Antonio. Therefore, the closer your responses are "in-match" to those of successful officers, the higher you will score on this section, and the higher the likelihood that you will be successful on the job.

You will be presented with multiple statements, and will be asked to use the scale below to rate how much you agree with the statement. A sample question is provided:

## The following five-point scale should be used to indicate your response to each statement presented:

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :---: | :---: | :---: | :---: | :---: |
| Strongly Agree | Agree | Not Sure | Disagree | Strongly Disagree |

## 1. I wish to do well on this exam.



Since you strongly agree with this statement, the correct answer choice is "1." In this case, answer choice "1" indicates that you strongly agree that you wish to do well on this exam.

## Guidelines for Behavioral-Orientation Questions

- Responses should be an indication of how you feel about the statement. For example, avoid answering "strongly" unless you truly feel "strongly." Mark "not sure" if you're truly in-between agreeing and disagreeing with the statement.
- Respond honestly to each statement.
- Don't spend too much time thinking about the statement. A good guideline for answering these types of items is to put down the first response that feels right.
- Use the full response scale (1-5). There are differences in agreeing and strongly agreeing with a statement, make sure you are indicating these differences.
- A "Candidness Scale" is imbedded in the behavioral-orientation test to detect if candidates are attempting to answer the questions based on 'looking good' instead of being truthful. Don't try to answer how you think you should, but how you truly feel.


## Ensure you answer all of these questions. This section is as important as the cognitive component of the SAELFE!!

## Chapter Seven: Additional Test-Taking Strategies

Throughout this study guide, we have offered you tips on how to improve your skills in each of the competency areas that will be measured on the exam. In this chapter, we will provide you with additional tips to help you do your best on the day of the exam.

## Before the exam:

$\checkmark$ Have a good night's sleep
Make sure that you get a good night's sleep the night before the exam so that you are rested and relaxed on the day of the test.

## On the day of the exam:

$\checkmark$ Arrive on time
It is crucial that you arrive on time! Punctuality will demonstrate your enthusiasm for a career in law enforcement. Besides, candidates who arrive late for a test are often turned away. We strongly recommend that you make plans to arrive early. Allow time for traffic delays, bad weather and any other holdups that may arise on the day of the test.

## $\checkmark$ Be Confident

Stay confident! A confident and positive attitude will help you to do your best on the exam. Keep in mind that although you should view the exam as a challenge, try not to succumb to stress and testtaking anxiety. Remember that by carefully reading this study guide, you have prepared yourself for the exam.

## Guessing strategies for the cognitive exam:

$\checkmark$ Pace yourself
Remember that you should pace yourself so that you can read and carefully consider each question.
$\checkmark$ Only correct answers are counted
Only correct answers will be counted as part of your score. A wild guess would be better than a blank space. You will not be penalized for a wrong answer, and you may just guess the right answer. If you see that you are running out of time, mark the remaining spaces with the same answer. Statistically, some of these answers will be right.

## $\checkmark$ Make an educated guess

If possible, try to make an educated guess rather than a wild guess. Try to eliminate the answer choices you know to be wrong and try to reason among the answers that remain. If you still do not know the answer, make a guess from the answers that remain. The odds of a right answer will increase if you can guess between two or three answers instead of four.
$\checkmark$ Mark questions that you have guessed in your booklet
When you make a guess, note that question in your memory or on scratch paper so that you can return to that question if time remains.

## On the exam:

## $\checkmark$ Read for overall meaning

If you cannot understand the meaning of a word in a sentence or passage, reread the entire passage for the general or overall meaning of the selection. By looking at the context, or the words and phrases around the unfamiliar word, you may be able to determine the meaning of the unfamiliar word.

## $\checkmark$ Carefully read each answer option

Keep in mind that incorrect answers are sometimes designed to divert or distract you from the correct response. Carefully read each answer option. Even if the option contains exact words or phrases from an accompanying passage, this does not guarantee that that option will be the correct answer. Watch out for answer options that contain the words "only," "always," "never" and "all." Make sure that you carefully read any passages accompanying the question to determine whether an answer option is accurate or an exaggeration. This does not mean that any answer option containing the words listed above is automatically incorrect. Again, you must carefully read the accompanying passage to determine the validity of an answer option.

## Good luck on the exam!

