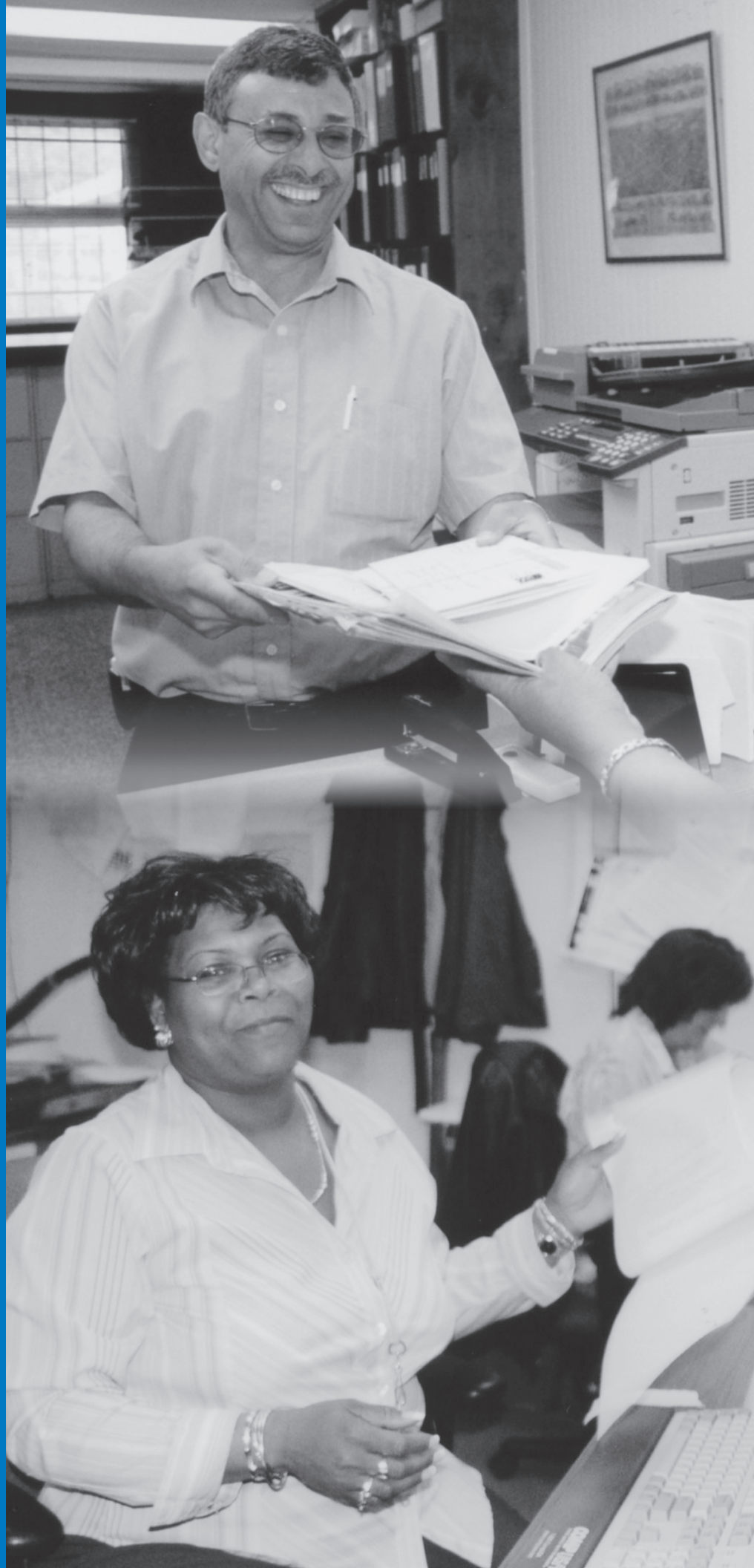


Making the Mark: Tips and Strategies for Civil Service Test Takers

*DVD Companion
Workbook*



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Local 1000 AFSCME, AFL-CIO
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Introduction

This workbook is a companion to the DVD *Making the Mark: Tips and Strategies for Civil Service Test Takers*. The DVD covers general test taking strategies and seven common Civil Service examination categories:

- Understanding and interpreting written material
- Basic math
- Office record keeping
- Understanding and interpreting tabular material
- Preparing written material
- Alphabetizing and name and number checking
- Scheduling

This workbook is divided into two sections. The first consists of test taking tips and strategies, many of which are covered in the DVD. The second part of this workbook contains sample exam questions that accompany the DVD, an answer key, and a diagnostic worksheet. The diagnostic worksheet helps you figure out what kinds of errors you may have made and why. You can use the worksheet to analyze each of the questions you missed. This will help you identify areas you may want to work on and may help you avoid similar errors in the future.

The best way to improve your test taking abilities is to practice. This workbook consists of a sampling of questions from some of the more common exam categories. CSEA also publishes a series of test preparation booklets on these topics and many others. When an announcement comes out for an exam that you are qualified to take, look it over to see what topics will appear on the test and compare these topics to the list of booklets available. If you are a CSEA member, you can obtain copies of the booklets online at this website:

<http://www.cseainc.org/wi>

You can also order printed booklets for a fee from the CSEA WORK Institute:

CSEA WORK Institute
1 Lear Jet Lane, Suite 5
Latham, NY 12110
1-866-478-5548

How to Use the DVD and Workbook

Some people may view this DVD as part of a group and others may work with the DVD independently. Whichever way you use this package, we strongly recommend that you pause the video and work through the questions to the best of your ability. This will pay dividends on exam day!

The DVD is too long to be completed in one sitting. You can make your way through it a little at a time, or you can use the menu to go directly to particular topics. When working through the questions, you will want to have some scrap paper and a calculator handy.

Good luck!

General Tips and Strategies

1. Practice, practice, practice

CSEA publishes a series of test preparation booklets that contain practice questions similar to the questions on actual tests. The very best way to prepare for most tests is to practice with these sample questions. Here's how to make the best use of the time you spend practicing.

- **Develop a multiple-choice mind**

Answering multiple-choice questions requires a certain kind of thinking that you are probably not accustomed to. You are faced with a problem and asked to choose the best of four possible solutions. The more you practice, the more you will develop the kind of mental habits you will need to deal with these types of questions. Practice will also help you learn strategies for handling specific types of questions.

- **Learn from your mistakes**

Don't worry if you answer some of the practice questions wrong. You can learn more from incorrect answers than from correct ones. Every test preparation booklet contains answers and explanations in the back of the book. Study the explanations for the questions that you answered incorrectly. It's best to answer a few questions at a time and then check the answers while the questions – and your thought processes in answering them – are still fresh in your mind.

The more you study, the more you will understand how to approach particular types of questions. Analyzing your incorrect answers will also help you learn about the kinds of mistakes you often make.

- **Work with the same questions more than once**

If you make yourself a separate answer sheet, you can work with the same questions more than once. This will reinforce what you have learned from both your correct and your incorrect answers. Going back over the same questions will help you become more aware of the tendencies and habits that cause you problems. It's even worthwhile to go back over questions that you answered correctly the first time. Read the explanations for the answers and make sure that your answers are right for the right reasons. Reviewing questions that you answered correctly will remind you about the best way to approach particular topics.

- **Spread out your practice time**

It's better to spread out your practice time over several weeks rather than try to pack in several hours of study just before an exam. Being exposed to sample questions several times will help you understand them better. It will also improve your recollection of the best way to approach particular topics. Every time you come back to a particular type of question, you will have a better understanding of the best way to handle it.

2. Be positive

Like an athlete preparing for a big game, you need to keep yourself positive as you prepare for your own important contest. Think of all your successes in life – all the worthwhile things you have done. Remind yourself that you have prepared for this test, that you know what to expect.

Remember this: Being able to answer questions correctly does not reflect upon your intelligence, your worth, or how well you actually do your job. It just reflects on your ability to answer test questions. That’s all. If you doubt this, think about people you know who are good at taking tests, but lacking in other areas like job competence or personality or basic human decency. Then think of those who are great people, highly intelligent, or incredibly effective in their jobs, but who do terribly on exams.

Go into your exam knowing that you are a worthwhile person, that you are well-prepared, and that you are ready to do your best.

3. Be patient and persistent

Good test takers are patient and persistent. They read each question carefully. (Speed reading is not a good idea when you are taking a Civil Service exam.)

Some questions will take longer than others. For example, for some questions on office record keeping, you may need to perform several calculations to come up with the correct answer. For some questions on interpreting written material, you may need to read a passage twice to be sure you understand it. Be patient and persistent. Don’t guess because you think you are spending too much time on a question.

Some questions are more difficult than others. We all find certain types of questions particularly puzzling, and it is easy to give up or guess on certain parts of the test. But patience and persistence are especially important with questions like these. Tell yourself, “I’m intelligent enough to answer this question if I take the time and make the effort to work through it.”

4. Know where you're going and get there early

Do everything you can to feel prepared and confident before the exam. This includes:

- Knowing exactly where you are going and how you are going to get there.
- Making a realistic estimate of how long it will take you to get to the test site.
- Making sure you have enough gas in your car or rides on your MetroCard.

5. Be prepared

Have everything you will need ready the night before the exam. This includes:

- Your admittance card and some form of ID.
- A calculator if math or tables are included on the exam. If you're not sure if the exam includes math, bring a calculator just in case.
- A watch. There is usually enough time to answer all the questions, but timing yourself will help you avoid using too much time on one section of the exam.
- A few #2 pencils.
- Food (see next section).

6. Being prepared includes bringing food

You want to do everything you can to keep your body and mind running smoothly throughout the test. That means keeping yourself well fueled with food.

Blood sugar levels rule our lives. Our brains need a constant, steady supply of glucose (blood sugar) to function properly. When blood sugar is low, you may feel irritable, frustrated, depressed, or impatient. You will definitely have a hard time concentrating. During an exam, when stakes are high, you will probably become anxious, so your adrenaline will be pumping and throwing off blood sugar levels even more. For this reason, bringing food to an exam may be critical.

Stay away from candy bars and other sweets. While they bring blood sugar up, they cause it to rise too high and too quickly. Blood sugar levels drop quickly when they are elevated by processed sugars, so not too long after the quick high comes an equally rapid low. These extreme fluctuations are hard on the body and prevent the brain from functioning as well as it could.

Instead of bringing sweets, bring foods that contain protein (such as cheese or nuts) or complex carbohydrates (such as vegetables or fruit).

If you're a smoker, it may be especially important for you to bring food to help you keep your body on an even keel. You will not be allowed to smoke in the exam room.

If you're accustomed to drinking several cups of coffee during the morning, bring a large thermos with you. You will be able to use the restroom during the exam.

Bring something to eat even if it is a short exam.

7. Don't be thrown by initial anxiety (if you have any)

It is only natural to feel nervous before a test. Nervousness may even be a good thing because it can sharpen your mental processes and prepare your brain for peak performance. But sometimes nervousness and anxiety can keep you from doing your best. Some people become so anxious at the beginning of a test that they “freeze up.” They can't concentrate and they lose all their self-confidence.

The best way to overcome anxiety is to be prepared. Know what kinds of questions to expect. Arrive at the test site early with everything you will need. Remind yourself about what you have done to get ready for the test.

If you still find yourself freezing up when you open your test booklet, try these techniques for coping with anxiety:

- **Listen to your body.** Fear or anxiety is a signal sent by your body. Your body is urgently telling you that you are in some kind of danger. If you acknowledge the signal and just watch it, your body becomes satisfied that you are paying attention, and it will allow you to calm down. If you try to ignore the signal or push it away, as most people do, then it often acts like an alarm that gets louder and louder if no one turns it off. The more you try to ignore it, the worse it affects you.
- **Think about similar experiences you have had.** How have you responded in similar situations in the past? If you're like most people, your feelings of anxiety will gradually go away as you settle into the work of taking the test. You have probably been through things like this in the past – an initial period of nervousness and anxiety that lasts only a short time.
- **Do some deep breathing.** Sit up straight, cross your legs at the ankles or keep your feet flat on the floor. Take a long, slow breath in through your nose and pretend that you are breathing into your abdomen. Allow your abdomen to expand. Then exhale slowly and evenly through your nose. As you exhale, allow your abdomen to go in, to slowly collapse as if the breath were coming out of your abdomen like air slowly being released from a balloon. Continue to breathe in this way for five to ten breaths.
- **Keep things in perspective.** This is only a test. The people who cared about you before the test will still care about you after the test, no matter how well you do. Nothing terrible will happen if you don't do well on the test. Don't think of the test as a threatening experience. Instead, think of it as a learning experience, a chance to practice your test-taking skills. And think of it as an opportunity, a chance to advance in your career. Remember that this is one of many such opportunities. Doing well on the test may give your career a boost, but there will always be other tests and other opportunities.

8. Pace yourself

Know how much time you have, and watch the time so that you can pace yourself. There is usually enough time to answer all the questions on an exam without hurrying. The

individual sections aren't timed, and you generally have enough time to finish them all. Typically, you will have 3 to 5 hours to answer 60 to 90 questions.

Some sections of the test will take longer than others. You don't need to become concerned unless it seems that you are taking an unreasonably long time on one section.

Usually, you will have enough time to answer all the questions and then go back and take a second look at questions that you found particularly difficult.

9. Take deep breaths and short rest breaks

Exams can be tedious, frustrating, and tiring. It's impossible to concentrate on test questions for several hours without taking short breaks. Your focus will start to fade and your mind will start to wander. The obvious time to take a break is between sections of the test. You might also want to take a short break after answering a particularly difficult question or group of questions. Keep your eye on your watch so that you won't worry about running out of time.

Here are a few things you can do to relax:

- Stretch your arms and legs.
- Eat something.
- Stare out the window.
- Take some deep breaths.

There are many books and video tapes available on relaxation techniques. You might want to experiment with various techniques before you take the exam.

10. Read very carefully

We cannot stress this enough. Reading carefully may be the best way for you to improve your test scores. Sometimes there may be just one word in an answer that will make that choice the wrong one.

11. Pick the best possible answer

Part of developing a "multiple-choice mind" is learning to pick the best possible answer. Sometimes you will feel that none of the choices you are given is really a good answer. You could probably come up with a better "correct answer" on your own. Don't be thrown by questions like these. Choose the "least bad" answer you are given, even if you think it is not very good.

You may be having trouble finding a good answer because you misunderstood the question. If you think that none of the choices is a good answer, go back and read the question again.

If you come across a badly written question, don't just skip it or give up in frustration. Choose the best answer available. Do the best you can and try to appeal the question

later. Remember that everyone taking the test has to deal with the same questions, so no one has an advantage when a question is badly written.

Don't choose an incorrect answer "on principle." For example, on the portion of the test that deals with supervision, you may have a good idea what the examiners would consider the correct answer, but you may disagree with them. You may have very different beliefs about what will work in the real world. Don't throw points away just to take a stand.

12. Assess the reasonableness of your conclusions

Be sure that your answer makes sense. Test writers often figure out the mistakes that people are likely to make and then include these as possible answers. This is especially true for questions that involve math.

Especially when dealing with numbers, take a moment to check if the answer you have chosen is reasonable.

13. Don't over analyze; don't jump to conclusions

Don't read too much into a question. Don't make a question more complicated than it really is. Also be careful when answering questions about topics that are very familiar to you. For example, some reading comprehension questions may deal with a subject that you know a great deal about. When answering questions like these, use the information provided in the reading passage, not your own personal knowledge.

At the opposite extreme, don't jump to conclusions. Don't be in such a hurry that you choose what you think is an obvious answer without reading the question carefully and determining that the answer you have chosen makes sense. Remember that test writers like to include incorrect possible answers that look correct at first glance.

14. Never, never leave an answer blank

Some standardized tests (such as the SAT college entrance exams) penalize you for choosing a wrong answer. Civil Service tests do not. You should never leave an answer blank. If you can narrow your choices to three possible answers, you have a 33% chance of choosing the right one. If you can narrow your choices to two possible answers, your chances improve to 50%. Even if you have no idea what the answer is, your chances of guessing the correct one are one in four.

15. Treat your scrap paper with respect

Try to keep your scrap paper labeled and in order. It can help you later, particularly in the math sections when you need to check your work.

When answering questions on office record keeping, don't do more computations than you need to. Typically with these questions, you will be given two tables, one with data missing. But it will probably not be necessary to perform the computations you would

need to do to fill in all the missing data. First, see what each question asks for and then do only the computation that it requires. Keep your scrap paper in order. It may help you with later questions.

16. Be sure to use the correct lines on your answer sheet

If you decide to skip a question and then come back to it, be sure to skip that line on your answer sheet. It can be very frustrating to come to the last question on a section of the test and find that you have an extra line on the answer sheet.

On some tests, you will be using only some of the questions. For example, you might be asked to answer questions 1 through 14 and then skip to question 25. Be sure that you also skip to question 25 on your answer sheet.

It's a good idea to double-check yourself on a regular basis (say, every five questions) to be sure that you are using the correct line on the answer sheet. That way, if you do get out of sync, you will only have to correct a few misplaced answers.

More Techniques and Strategies

Understanding and Interpreting Written Material

- **Don't be intimidated by technical subjects and language.** You will probably encounter some passages about topics that are completely foreign to you. For example, you might find passages about astronomy or meteorology or economics. These passages might contain technical vocabulary that you are not familiar with. Don't let these subjects or this unusual vocabulary throw you. The questions on this section of the test require no special knowledge of their subject. Read the question and the possible answers carefully and look for the relevant sentences in the reading passages. Focus on what the question is asking, not on technical terms that you don't understand.
- **Break down long sentences.** Sometimes sentences are so long that you have trouble understanding them. The best thing to do when this happens is to break the sentence down into its parts. Pay attention to the punctuation. It will help you see how the sentence is constructed.
- **Use only the information in the reading passage.** Sometimes you will come across a reading passage about a topic that you know well. It is easy in these situations to base your answer on your own knowledge. But you should resist this temptation. Use only the information presented in the reading passage.
- **Be careful of qualifying words.** Pay special attention to words such as *no*, *few*, *many*, *most*, *all*, *never*, *occasionally*, *usually*, *frequently*, *always*, and *except*. When they appear in a question, they can change the nature of the question. Also beware of these words in answers. Make sure the word used in an answer agrees with the word used in the passage. Does the passage say something happened *frequently* or *rarely*? Does the passage say that a certain thing is *usually true* or only *sometimes true*? Be especially careful of words like *all*, *none*, *always*, and *never*. They may make the statement too strong to be true.
- **When you don't know the answer to a question that asks for a specific detail, don't re-read the entire passage.** Skim it to find the relevant sentence. As you skim, look for key words that relate to the question.
- **Try reading the questions first.** If you are having trouble getting into a passage, you might try skipping to the question and see what you will need to know to answer it. This approach also works well with especially long passages. If you know what you are looking for before you read the passage, you can disregard the irrelevant information and focus on what you need to know.
- **Focus on the meat of the passage.** Some passages contain lots of details that are included mainly to distract you. If you are having trouble comprehending a passage, ask yourself this: What is important about what the writer is saying? What is the main point the writer is trying to make?
- **Watch out for math errors.** Although this part of the test is about reading comprehension, not math, there may be some questions that require simple

computations. As in other sections, the people who write the test know what kinds of errors test takers are likely to make, and some of the possible answers are based on these errors.

Basic Math

The best way to prepare for this part of the test is to practice with different types of questions. You might want to work with CSEA's test prep books on math topics. GED study guides also usually have a variety of math questions with explanations of the answers.

If you expect to have math questions on a test, make sure you have a solid understanding of percentages, decimals, and ratios.

Office Record Keeping

Understanding and Interpreting Tabular Material

- **Be sure to choose the right information.** You may be given a table with dozens of numbers. You need to be sure to choose the correct ones.
- **Be sure you choose the right math operations.** Once you have found the correct numbers, you may need to do some basic math – addition, subtraction, multiplication, or division. You need to decide which of these operations to use.

Note: You do not need to be a math genius to answer these questions! You are allowed to use a calculator. Practice using your calculator before the test.

- **Read the questions and study the tables carefully.** The best way to improve your score on these parts of the test is to take the time to understand exactly what you are being asked to do. As usual, test writers will try to trick you. If you're not careful, you may fall for their tricks.

Preparing Written Material

Paragraph Organization

These questions all follow the same general pattern. You are given five sentences and asked to arrange them in the correct order. There are at least three strategies you can use to answer these questions.

Strategy 1:

1. **Look for what is logically the first sentence.** Read each sentence and ask yourself if it would make sense for it to be the first sentence in the sequence. Once you have identified the first sentence, you can eliminate the possible answers that begin with a different sentence.
2. **Look for a sentence that should obviously come immediately after another sentence.** This may help you eliminate other possible answers.

- 3. Study the sentences that remain and see where they might fit in with the sentences you have been working with.** In steps 1 and 2, you have identified the first sentence of the passage and the logical order of two other sentences. Now look at the remaining sentences and see how they might fit in with these three.

When you are trying to see if one sentence logically follows another, look for *transition* expressions that might point back to the previous sentence. Transitions are words or phrases such as “on the other hand,” “these,” or “however.” Transitions signal the relationship of one sentence to another.

Strategy 2:

Begin by eliminating wrong answers. For example, some answers will begin with a sentence that is obviously not the first sentence. Then try out the remaining answers to see which one makes most sense.

Strategy 3:

Try to arrange the sentences in order yourself, without looking at the answers. Then see if your arrangement matches one of the possible answers given.

Information Presentation

These questions test your ability to recognize accurate paraphrasing, well-constructed paragraphs, and appropriate style and tone. It’s important that the answer you select contains only the facts or concepts given in the original sentences. It’s also important that you be aware of grammatical errors, inappropriate transitions, unsupported opinions, incorrect usage, wordiness, and illogical sentence order. Paragraphs that don’t include all the necessary facts and concepts, that distort them, or that add new ones are not considered correct.

Alphabetizing and Name and Number Checking

At the beginning of the test, write out the alphabet on a sheet of scrap paper. This will save you time and improve the accuracy of your answers. For example, one of the questions might say, “If the alphabet were reversed, what would be the 7th letter after the letter S?” You could try to go backward through the alphabet in your head, but you can answer this question more quickly, and have a better chance of choosing the correct answer, if you count backward from S on paper. (Make sure, when you write out the alphabet, that you don’t leave out any letters!)

Scheduling

Use your scrap paper to clarify your understanding of these problems. They are usually too complicated to keep straight in your head. Make timelines, charts, tables — any sort of visualization that will help you organize the information you are given.

Diagnostic Worksheet

This form is designed to give you more insight into why you answered a question incorrectly. Analyze each question you miss in terms of the checklist below. Put the number of the question missed next to each trait that you feel contributed to your error on that question. This will make it obvious which areas you need to work on.

Question Number(s)	Trait Exhibited
	1. I jumped to an incorrect conclusion.
	2. I misinterpreted what the question was asking.
	3. I had little confidence I could solve the problem.
	4. I didn't break the reading passage into more easily understood parts.
	5. I knew I couldn't solve the problem, so I gave up and guessed.
	6. I made a careless error.
	7. I "followed a hunch" without checking it through.
	8. I didn't step back and evaluate the reasonableness of my conclusion.
	9. I worked mechanically because I knew it was hopeless.
	10. I didn't check my work.
	11. I became bored or frustrated, and took a guess.
	12. I had no systematic approach to solving the problem.
	13. I didn't try to visualize the problem.
	14. I misinterpreted the information I was given.
	15. I tried to answer the question without realizing that my understanding of the problem was vague.

Understanding and Interpreting Written Material

For each of the following questions, select the letter that represents the best of the four possible answers.

1. An earthquake can be measured qualitatively or quantitatively. The qualitative scale most commonly used is the Modified Mercalli Intensity Scale. The scale rates quakes from “1” (least intense) to “12” (most intense) based on the reactions of both animate and inanimate objects, including people. A quake rated “1” on this scale would be barely detectable by people, but it would cause doors and chandeliers to swing slowly. Quakes rated “12” are those which produce general panic and near-total destruction. The quantitative Richter Scale, on the other hand, measures quakes based on the logarithm of the height of the seismic wave. Each number represents a quake ten times greater than the number before it. A quake of 2.5, for example, can be scarcely felt by local witnesses, while a quake of 3.5 can cause structural damage to buildings.

According to the author, an earthquake rated 6 on the Richter Scale is how many times greater than a quake rated 3?

- a. twice as great
 - b. 3 times greater
 - c. 100 times greater
 - d. 1,000 times greater
-
2. Genetic engineering may lead to cures for many common diseases, but it may also create new, potentially deadly hazards. For example, introducing cancer-causing genes into a common infectious organism, such as the influenza virus, could be highly dangerous. For this reason, experiments with recombinant DNA are closely regulated in the U.S. Potentially hazardous experiments are reviewed by both the National Institutes of Health (NIH) and the Food and Drug Administration (FDA). The FDA has already approved human drugs and vaccines, diagnostic devices, and food processing enzymes produced through recombinant DNA technology. It is also overseeing the creation of genetically engineered food crops. The U.S. Department of Agriculture (USDA) regulates use of genetically engineered plants, microorganisms, and veterinary biological products.

Which of the following statements is best supported by the above passage?

- a. The dangers of DNA research outweigh the potential benefits.
- b. Government regulation of genetic engineering is not strict enough.
- c. The FDA and the USDA have different views on the safety of genetic engineering.
- d. The potential hazards associated with genetic engineering require careful regulation.

3. Hurricanes consist of high-velocity winds blowing circularly around a low-pressure center, known as the eye of the storm. The strength of a hurricane is rated from 1 to 5. The mildest, Category 1, has winds of at least 74 mph. The strongest (and rarest), Category 5, has winds that exceed 155 mph. Within the eye of the storm, the winds stop and the clouds lift, but the seas remain very violent.

Which of the following statements is best supported by the above passage?

- a. Category 3 hurricanes are the most common type.
 - b. The strength of a hurricane is determined by the size of the eye.
 - c. It is common for winds in a hurricane to exceed 155 mph.
 - d. For a storm to be classified as a hurricane, it must have winds of at least 74 mph.
4. Between 1810 and 1816, a group of New York citizens made repeated efforts to get federal funding for a canal that would link Lake Erie and the Hudson River. When the federal government refused to provide any assistance, a group of New Yorkers led by DeWitt Clinton proposed that the State fund the canal. Clinton was elected governor in 1817, and work on the Erie Canal, financed by the State, began on July 4 of that year in Rome, New York. A section of the canal, from Rome to Utica, was opened to navigation in 1819. The waterway was completed in 1825, and on October 26 of that year the canal boat Seneca Chief set out from Buffalo to New York City. It arrived with great fanfare on November 4. The high point of the celebration was the dumping of a barrel of Lake Erie water into the Atlantic Ocean.

Listed below are four statements concerning this passage

- I. The federal government refused to provide funds for constructing the Erie Canal.
- II. Construction of the Erie Canal took approximately 15 years.
- III. State funds were used to finance the construction of the Erie Canal.
- IV. Construction of the Erie Canal began in Buffalo.

Of the above,

- a. Only Statements I, III, and IV are correct.
- b. Only Statements II and IV are correct.
- c. Only Statements I and III are correct.
- d. Only Statements I and IV are correct.

5. The Great Lakes are a group of five large lakes in central North America. From east to west, they are Lakes Ontario, Erie, Huron, Michigan, and Superior. Lake Michigan lies entirely within the U.S., but the other lakes straddle the border between the U.S. and Canada. About two-thirds of the surface area is within the boundaries of the U.S. All are jointly controlled by the U.S. and Canada under the Boundary Waters Treaty of 1909. Taken together, the Great Lakes represent the largest body of fresh water in the world.

Which of the following statements is best supported by the above passage?

- a. Lake Michigan is west of Lake Huron.
- b. The Boundary Waters Treaty of 1909 gave sole control of the Great Lakes to the U.S.
- c. The U.S. and Canada have a long history of disputes over control of the Great Lakes.
- d. Most of the area of the Great Lakes falls within the borders of Canada.

Basic Math

1. If Jean's weekly income doubled, she would be making \$120 more than Barbara. Jean's weekly income is \$80 more than half of Betty's. Betty makes \$400 a week. How much does Barbara make?
 - a. \$280
 - b. \$400
 - c. \$440
 - d. \$560

2. A conference with 3600 participants gathers in Albany. One out of every twelve people attending the conference who have ordered meals has special dietary needs. Half of those attending the conference signed up for meals. How many have special dietary needs?
 - a. 266
 - b. 133
 - c. 150
 - d. 300

3. It costs \$360 for Office X's service contract with a photocopier company to service 18 copiers for six months. At this same rate, how much would it cost Office X to service six copiers for three months?
 - a. \$80
 - b. \$75
 - c. \$60
 - d. \$90

4. Agency Y employs 13,800 people. Of these, 42% are male, and 50% of the males are age 30 or younger. How many males are there in Agency Y who are older than 30?
- a. 5796
 - b. 2898
 - c. 3471
 - d. 2910
5. Between 2002 and 2005, the average price of a home in Pleasantville went up from \$150,000 to \$165,000. What was the percentage increase in the price of a home?
- a. 10%
 - b. 15%
 - c. 5%
 - d. 20%
6. In 2005, the training department of Company Y spent \$79,000 on salaries and \$9,540 on training materials. For each dollar spent on training materials, how many dollars were spent on salaries?
- a. \$8.28
 - b. \$0.12
 - c. \$7.90
 - d. \$0.79

Office Record Keeping

Use the following table to answer questions 1 through 4.

Contract Schedule for Current Program Year

Contract Number	RFP* Issued	Proposals Due	Award Date	Start Date
A271-001	April 3	May 20	July 2	August 1
A217-002	April 3	May 20	June 21	July 18
B001-451	April 3	June 18	July 1	July 28
C319-030	May 12	July 1	July 20	August 12
C671-009	May 21	July 20	August 8	August 30
D987-022	June 12	August 8	August 20	September 1
D998-001	July 1	September 1	September 10	September 15
F762-009	July 20	September 18	October 5	October 20

*RFP = Request for Proposals

1. Which of the following contracts has an award date in July?
 - a. A217-002
 - b. D987-022
 - c. A271-001
 - d. C671-009

2. Of the contracts that have a start date in August, how many have proposals due in May?
 - a. 1
 - b. 2
 - c. 3
 - d. 0

3. For which contracts are proposals due in July?
 - a. A271-001 and A217-002
 - b. D998-001 and F762-009
 - c. B001-451
 - d. C319-030 and C671-009

4. Which contract with an award date in July has the earliest scheduled start date?
 - a. A217-002
 - b. B001-451
 - c. A271-001
 - d. C319-030

Use the following tables to answer questions 5 through 7.

Total Enrollment in Elective Courses

Course	9th grade	10th grade	11th grade	12th grade
French				
French I	110	34	5	3
French II	34	98	45	20
French III	0	23	81	57
Spanish				
Spanish I	115	39	7	8
Spanish II	38	99	52	42
Spanish III	0	26	89	50
Technology				
Wood	12	46	45	23
Auto	8	78	63	56
Electricity	0	37	34	22
Art				
Drawing and Painting	11	33	34	24
Sculpture	13	25	22	24
Computer Science				
Intro to Computer Science	0	45	51	45
Designing Web Pages	0	49	82	64
Driver's Education	0	6	205	183

Total Enrollment in Elective Courses

	Technology	Art	Driver's Education	French	Spanish	Computer Science
9th grade	20	24	0	144	153	0
10th grade						
11th grade				A		
12th grade						

5. Which grade has the largest enrollment in art courses?
- a. 9th
 - b. 10th
 - c. 11th
 - d. 12th
6. What is the value of A?
- a. 152
 - b. 5
 - c. 144
 - d. 131
7. Which elective has the greatest enrollment of 11th graders?
- a. Spanish
 - b. Driver's Education
 - c. Technology
 - d. Art

Understanding and Interpreting Tabular Material

Some tables in this section may be formatted in a way that seems unfamiliar to you. In the table below, the totals for the different categories of income and expenses appear *above* the items they include. For example, the total for Federal Funds in 2003 is 57,800. This number represents the total of the three items below it: Commodities Support, CBG Grants, and Training Contracts.

Cummings Employment Training

INCOME	2003	2004	2005
Federal Funds	57,800	64,070	?
Commodities Support	20,000	26,900	29,800
CBG Grants	14,000	10,000	0
Training Contracts	?	27,170	54,840
County Funds	12,400	17,500	23,070
Grants	0	?	16,000
Smith Foundation	0	8,000	12,000
Wealth-Rite Corp.	0	5,000	?
TOTAL	70,200	?	?

EXPENSES	2003	2004	2005
Personnel	51,750	71,300	90,850
Salaries	45,000	?	?
Benefits	6,750	?	11,850
Office	10,120	13,540	17,505
Training Materials	6,800	8,500	9,540
Transportation	1,530	2,230	3,120
TOTAL	70,200	95,570	?

Use the following tables to answer questions 1 and 2.

Table 1: Types of Warehouses, 2005

Category of Operation	Number of Establishments	Total Revenue (\$000)	Proportion of Total Revenue in 2005
Local trucking & storage (including household goods)	4,687	823,859	?
General merchandise warehousing	?	610,566	28.74
Refrigerated goods (including food lockers)	1,534	?	16.55
Farm products	744	155,085	7.30
Special warehousing	?	136,861	6.44
Household goods	423	46,698	?
TOTAL	10,026	2,124,765	100.00

Table 2: General Merchandise Warehousing

Year	Number of Establishments	Public Floor Space (000 sq. ft.)	Number of Paid Employees	Revenue (\$000)
1985	1,197	108,315	22,283	171,542
1990	1,512	119,324	22,496	200,934
1995	1,483	129,170	22,880	248,282
2000	1,667	163,168	28,295	379,910
2005	2,170	296,067	32,495	610,566

1. Approximately how many square feet of public floor space were held by the average general merchandise warehouse establishment in 2005?
 - a. 136
 - b. 973
 - c. 97,298
 - d. 136,440

2. In which category of operation was the average revenue per establishment greatest in 2005?
 - a. local trucking and storage
 - b. general merchandise warehousing
 - c. refrigerated goods
 - d. it cannot be determined from the information given

Use the following tables to answer questions 3 and 4.

Cummings Employment Training

INCOME	2003	2004	2005
Federal Funds	57,800	64,070	?
Commodities Support	20,000	26,900	29,800
CBG Grants	14,000	10,000	0
Training Contracts	?	27,170	54,840
County Funds	12,400	17,500	23,070
Grants	0	?	16,000
Smith Foundation	0	8,000	12,000
Wealth-Rite Corp.	0	5,000	?
TOTAL	70,200	?	?

EXPENSES	2003	2004	2005
Personnel	51,750	71,300	90,850
Salaries	45,000	?	?
Benefits	6,750	?	11,850
Office	10,120	13,540	17,505
Training Materials	6,800	8,500	9,540
Transportation	1,530	2,230	3,120
TOTAL	70,200	95,570	?

3. By what percent did the training program's spending increase from 2003 to 2004?
- a. 73%
 - b. 36%
 - c. 27%
 - d. 54%
4. By what percent did the training program's income increase from 2003 to 2004?
- a. 35%
 - b. 29%
 - c. 27%
 - d. 24%

Use the following tables to answer question 5.

**U.S. Balance of Trade, by Region
(billions of dollars)**

	1985	1995	2005	Change from 1985–1995	Change from 1995–2005
Germany	+0.4	–1.4	?	?	+0.2
Other Europe	+2.6	+1.4	+7.6	?	+6.2
Japan	+0.3	–4.1	–8.1	–4.4	–4.0
South Korea	+0.5	–1.4	–4.0	?	–2.6
Other Asia	+1.1	+1.7	?	+0.6	–0.2
Australia	+0.1	?	+1.6	+0.4	?

5. From 1985 to 2005, the U.S. Balance of Trade with South Korea:
- a. decreased 1.9%
 - b. decreased \$2.6 billion
 - c. decreased 90%
 - d. decreased 900%

Preparing Written Material

The following groups of sentences need to be arranged in an order that makes sense. Select the letter preceding the sequence that represents the best sentence order.

1.
 1. For these reasons, dictionaries try to reflect the way people actually write and speak, and they must be updated frequently to account for changes in the way people use language.
 2. Many words that were once considered slang have become accepted as standard English.
 3. Science and technology have also given us many new words, such as “laser” and “quark.”
 4. For example, the word “mob” was once considered a vulgar “street word,” but now it is accepted as part of standard English vocabulary.
 5. Our language is constantly changing.
 - a. 1-3-4-2-5
 - b. 2-3-4-1-5
 - c. 2-4-3-1-5
 - d. 5-2-4-3-1

2.
 1. Others think that the Second Amendment refers strictly to the right of citizens to bear arms in their common defense as part of an organized militia.
 2. No one expects the issue to be resolved soon.
 3. Some people consider any attempt to regulate firearms a violation of this right.
 4. The Second Amendment to the Constitution concerns the right of the people to keep and bear arms.
 5. This disagreement has been at the heart of the national debate over gun control for many years.
 - a. 4-3-5-1-2
 - b. 4-3-1-5-2
 - c. 3-1-5-2-4
 - d. 4-5-3-1-2

3.
 1. More and more people are questioning the value of these investments.
 2. Some feel that professional sports do not have a significant impact on an area's economy.
 3. Supporters of public funding for stadiums disagree; they believe that professional sports offer the public an excellent return on their investment.
 4. Should public funds be used to build stadiums for professional sports teams?
 5. Others acknowledge that pro sports can have economic benefits, but they think that the money spent on stadiums should be used for other purposes.
-
- a. 4-1-2-5-3
 - b. 2-5-1-3-4
 - c. 2-3-5-1-4
 - d. 4-2-5-3-1

For questions 4–6, select the paragraph that best expresses the ideas contained in the sentences above it.

- 4.
1. Snowboarding has become an increasingly popular alternative to traditional skiing.
 2. From the beginning, snowboarders were perceived as a little wilder, a little more adventurous than skiers.
 3. This image of the snowboarder as a free spirit has made the sport particularly popular among young people.
 - a. In recent years, snowboarding has actually become more popular than traditional skiing. The image of the reckless, carefree snowboarder has made the sport especially popular among young people, who are more inclined to take risks.
 - b. Snowboarding has become increasingly popular over the years. Snowboarding is seen by many as a more adventurous sport than skiing. Snowboarding has become popular for this reason among young people.
 - c. Snowboarding has become an increasingly popular sport. The image of the snowboarder as a carefree adventurer seems to have an especially strong appeal to young people who are looking for an alternative to skiing.
 - d. Adventure and risk-taking, to some degree, is the main appeal of snowboarding. This combination of features makes snowboarding especially appealing to young people.

5.
 1. The advent of the computer was supposed to lead to “paperless” offices, but this prediction has not come true.
 2. Office workers are actually using more paper today than they did before computers were introduced.
 3. Computers have made it easier for workers to generate paperwork; therefore, they seem to be generating more of it.
 - a. Computers have caused an increase in the amount of paper used in offices. Documents are easier to prepare than they were in the past. Office workers produce more of them.
 - b. Computers have not created what was expected by many to be a “paperless” office. If anything, people in offices use more paper than they used to.
 - c. It is easier to produce documents now as opposed to before computers. This has led to an increase in the amount of paper used in offices because more documents are prepared now than in the past.
 - d. Many people expected computers to lead to “paperless” offices, but this prediction has not come true. Office workers are actually using more paper than they did in the past, perhaps because the process of generating paperwork has become easier with computers.
6.
 1. Small children should ride in the back seat of cars.
 2. In an accident, a small child sitting in the front seat may be injured or even killed when the air bag deploys.
 3. Small children should sit in approved safety seats, properly installed according to the manufacturer’s instructions.
 - a. Small children in an accident can be injured or killed when sitting in the front seat of a car by the air bag. They should sit in the back seat in an approved and properly installed safety seat.
 - b. Air bags can injure or kill small children in the front seat of cars when they deploy. Children should sit in the back seat in an approved seat installed by the manufacturer.
 - c. Small children should not sit in the front seat of cars. In an accident, a small child may be injured or even killed by the force of the air bag. Small children should sit in approved child safety seats, which have been installed according to the manufacturer’s instructions.
 - d. Small children should sit in the back seat of cars because it is safer. In the front seat a child may be injured or even killed by the air bag. A child should sit in the back seat in a properly approved safety seat.

Alphabetizing and Name and Number Checking

For each of the following questions, select the letter (a, b, c, d) that represents the best choice of the four possible answers.

1. If every third letter of the alphabet (i.e., 3rd, 6th, 9th, etc.) was crossed out, what would be the eighth letter remaining?
 - a. J
 - b. K
 - c. L
 - d. M

2. If the digits of the second largest of the following numbers were reversed, what would the second digit be?

6364121	6362415	6265437
6365863	6360109	6365952

 - a. 3
 - b. 1
 - c. 2
 - d. 6

3. Within the word ALCOHOLISM, which of the following letters are separated by the same number of letters as in the alphabet?
 - a. C and H
 - b. A and H
 - c. A and C
 - d. I and M

4. How many of the following words have a letter repeated other than the first or last letters of that word?

evoke
debate

matter
marriage

create
aroma

tartar
leather

- a. 4
b. 2
c. 5
d. 3
5. In the following list of digits, how many times does the number 4 appear directly after the number 3 when the number 3 is immediately after an even number?

2 3 4 3 4 5 6 7 3 4 8 3 4 7 7 3 2 4 4 3 2

- a. 1
b. 2
c. 3
d. 4
6. How many of the series of letters in Column A are identical to the corresponding series of letters in Column B?

Column A

huplkhi
mkjdgef
cetigtqa
wqaoprht

Column B

huplkhi
mkjdgef
cetoigtqa
wqaprht

- a. one
b. two
c. three
d. four

7. If you added the last two digits of the smallest of the following numbers, what would the sum be?

2764512
2799872

2791758
2770987

2703928
2789876

- a. 10
b. 3
c. 9
d. 15
8. Which letter is as far beyond the letter Q as I is beyond F?
- a. S
b. T
c. U
d. V

Scheduling

Use the following information to answer questions 1 through 3.

Everyone in your unit must attend a two-part training program. Employees can take the first part on Tuesday, May 2, or Thursday, May 4. Employees can take the second part on Tuesday, May 9, or Thursday, May 11. There are eight employees in your unit: Albert, Bea, Carol, David, Edward, Frank, Ginnie, and Hal. David does not work on Tuesdays, and Carol does not work on Thursdays. There must be at least three employees working at their normal jobs in the unit (not taking part in training) at all times.

1. Which of the following would be a possible roster for the training session on Tuesday, May 9?
 - a. Albert, Frank, Ginnie, Hal
 - b. Albert, Bea, Carol
 - c. Bea, David, Ginnie, Hal
 - d. Albert, Bea, Carol, Edward

2. Which of the following would be a possible roster for the training session on Thursday, May 11?
 - a. Albert, David, Carol, Edward
 - b. David, Frank, Ginnie
 - c. Albert, Bea, David, Edward
 - d. Bea, Edward, Frank, Ginnie

3. Which of the following would be a possible roster for the training session on Tuesday, May 2?
 - a. Carol, Frank, Ginnie, Hal
 - b. Albert, Ginnie, Hal
 - c. Albert, Bea, David, Edward
 - d. Albert, Bea, Edward, Frank

Use the following information to answer question 4 through 6.

Your department has established the following timeline for requesting proposals and awarding contracts. The first step in the process is to issue a Request for Proposals (RFP). Vendors then have at least two months to submit their proposals. The department then has at least one month to choose a vendor. The contract will start at least one month after the vendor has been chosen.

4. The department would like a contract to start on September 23. If the RFP was issued on May 8, when could proposals be due?
 - a. July 22
 - b. July 2
 - c. July 29
 - d. August 3

5. The RFP for a contract was issued on May 17. Of the following choices, which is the earliest possible start date?
 - a. October 17
 - b. September 2
 - c. September 7
 - d. September 20

6. The department would like to choose a vendor for a contract on August 15. Of the following, which is the latest date an RFP could be issued?
 - a. June 14
 - b. May 14
 - c. May 1
 - d. June 1

Answer Key

Understanding and Interpreting Written Material

- | | |
|------|------|
| 1. d | 4. c |
| 2. d | 5. a |
| 3. d | |

Basic Math

- | | |
|------|------|
| 1. c | 4. b |
| 2. c | 5. a |
| 3. c | 6. a |

Office Record Keeping

- | | |
|------|------|
| 1. c | 5. b |
| 2. a | 6. d |
| 3. d | 7. b |
| 4. b | |

Understanding and Interpreting Tabular Material

- | | |
|------|------|
| 1. d | 4. a |
| 2. b | 5. d |
| 3. b | |

Preparing Written Material

- | | |
|------|------|
| 1. d | 4. c |
| 2. b | 5. d |
| 3. a | 6. c |

Alphabetizing and Name and Number Checking

- | | |
|------|------|
| 1. b | 5. c |
| 2. d | 6. b |
| 3. c | 7. a |
| 4. a | 8. b |

Scheduling

- | | |
|------|------|
| 1. d | 4. a |
| 2. c | 5. d |
| 3. a | 6. b |

Answers and Explanations

Understanding and Interpreting Written Material

1. The answer is choice d. The seventh sentence says that each number on the Richter Scale represents a quake ten times greater than the previous number. This means that a quake measuring “4” would be ten times greater than a quake measuring “3.” Likewise, a “5” quake would be ten times greater than a “4,” or one hundred times (10 x 10) greater than a “3,” and a “6” would be ten times greater than a “5,” 100 times greater than a “4,” and 1,000 times greater than a “3.” Choice a might have looked like a good answer if you read it quickly and noticed only that 6 is “twice as great” as 3. Otherwise, careful reading and multiplying should have led you to the right answer.
2. The answer is choice d. Choice a is incorrect because, while the passage speaks extensively about the potential dangers of genetic engineering, nowhere does it say that the dangers outweigh the benefits. Choice b is incorrect because the author expresses no opinion on whether government regulation of genetic engineering is strict enough. Choice c is incorrect because there is no statement or implication in the passage that the FDA and the USDA disagree on the safety of genetic engineering. Choice d is correct because the passage states that the potential hazards of genetic engineering require government regulation.
3. The answer is choice d. Choice a is incorrect. The passage says that Category 5 hurricanes are the rarest, but it says nothing about which category is the most common. Choice b is incorrect because nothing in the passage suggests that there is a relationship between the strength of a hurricane and the size of the eye. Choice c is incorrect because the passage says winds that exceed 155 mph occur in Class 5 hurricanes, which are the rarest type; therefore, it is not common to have winds of this speed in a hurricane. Choice d is correct because the passage states that the mildest category of hurricanes has winds of at least 74 mph.
4. The answer is choice c. This question is a bit more complicated than the ones we have seen so far. The best way to approach a question like this is to evaluate the statements one at a time and decide whether they are correct or incorrect. You might just right “correct” or “incorrect” after each one. Statement 1 is correct. Statement 2 is incorrect because construction of the Erie Canal took 8 years, not 15 years. Statement 3 is correct. Statement 4 is incorrect because construction of the canal began in Rome, not Buffalo. So only statements 1 and 3 are correct.

5. The answer is choice a. Choice b is incorrect because the Boundary Waters Treaty gave the U.S. and Canada joint control of the Great Lakes. Choice c is incorrect because nothing in the passage says that the U.S. and Canada have a history of disputes over control of the Great Lakes. Choice d is incorrect because about two-thirds of the Great Lakes fall within the boundaries of the U.S. Choice a is supported by a careful reading of the second sentence of the paragraph.

Basic Math

1. The answer is choice c. This kind of question is difficult unless you break it down into parts and solve it step-by-step. The question asks about Barbara's salary, but we can see that we can't find Barbara's salary until we find Jean's.

Jean's weekly salary is \$80 more than half of Betty's. We can write this in equation form like this:

$$\text{Jean} = \$80 + 1/2 \text{ Betty}$$

We are told that Betty makes \$400, so now the equation is:

$$\text{Jean} = \$80 + 1/2 (\$400)$$

or

$$\text{Jean} = \$80 + \$200.$$

So Jean's salary is \$280. Now we have to figure Barbara's salary. The first sentence tells us that if Jean's weekly salary doubled, she would be making \$120 more per week than Barbara. You can write this in equation form like this:

$$2 \times \text{Jean} = \text{Barbara} + \$120$$

Two times Jean's salary of \$280 would be \$560. So

$$\$560 = \text{Barbara plus } \$120$$

So Barbara's salary plus \$120 equals \$560. To find Barbara's salary, subtract \$120 from \$560.

\$560 minus \$120 is \$440, and that is Barbara's salary.

2. The answer is choice c. Here are the facts you are given. There are 3600 people attending the conference, but only half of the 3600 have ordered meals. When you divide 3600 by 2, you see that 1800 people have ordered meals.

Now 1 in 12, or one twelfth, of these 1800 people have special dietary needs. So to find out how many have special dietary needs, multiply 1800 times one twelfth.

$$\frac{1}{12} \times 1800$$

The first step in multiplying numbers like these is to convert all the numbers to fractions. 1800 is the same as 1800 over 1.

$$\frac{1}{12} \times \frac{1800}{1}$$

The top numbers in these fractions are called the numerators. The bottom numbers are called the denominators. To multiply fractions, you multiply the numerators by each other and the denominators by each other.

$$\frac{1}{12} \times \frac{1800}{12} = \frac{1800}{12}$$

When you divide 1800 by 12, you get 150, and that's the answer.

3. The answer is choice c. The simplest way to solve this problem is to begin by figuring out how much it costs to service one copier for six months. If it costs \$360 to service 18 copiers, then it costs \$20 for each copier.

$$\$360 \div 18 = \$20$$

The question asks about six copiers, so multiply \$20 times six. It would cost \$120 to service six copiers for six months. But the question asks about three months, not six. In other words, half as long. If we divide \$120 by two, we see that it would cost \$60 to service six copiers for three months.

4. The answer is choice b. Let's look at the information we're given. There are 13,800 employees in Agency Y, and 42% of them are male. So how many are male? The first step in working with percentages is to convert the percent to a decimal. You do this by moving the decimal point two places to the left.

Here's one way to remember this. Think about sales tax. Let's say the county sales tax is 8%. A sales tax of 8% equals 8 cents on the dollar, which if you wrote it out would be .08. This means that to go from a percent to a decimal you move the decimal point two places to the left.

And then you can reverse this to go from a decimal to a percent. To go from a decimal to a percent, you move the decimal point two places to the right. So .08 equals 8%. So we can see that 42% equals .42.

To find out how many males are employed in Agency Y, multiply .42 times 13,800. There are 5,796 males in Agency Y.

We are told that 50% of the males are age 30 or younger. This means that 50%, or one half are older than 30. When you divide 5,796 by two, you find that there are 2,898 male employees older than 30. You could also solve this problem by converting 50% to a decimal (50% = .5) and then multiplying .5 times 5,796.

$$.5 \times 5,796 = 2,898$$

5. The answer is choice a. This is a fairly common type of percentage problem. If a problem asks about percent increase or decrease, you first have to find the amount of the increase or decrease. If the average price of a home went up from \$150,000 to \$165,000, that is an increase of \$15,000.

Now to find the percent increase, divide the amount of the increase by the original amount. \$15,000 divided by \$150,000 is .1. To convert a decimal to a percent, we move the decimal point two places to the right. So .1 equals 10%.

6. The answer is choice a. Before we tackle this problem, let's see what ratios are all about. Ratios are used to express relationships. Let's say you spend \$400 a month on food and \$800 a month on rent. For every dollar you spend on food, how many dollars do you spend on rent? In ratio language, this question is:

400 is to 800 as 1 is to ?

There are two ways to set up this problem. One looks like this:

$$\frac{1}{x} = \frac{400}{800}$$

The letter x is used to represent the "unknown" (the number you are trying to find). To solve this problem, you "cross multiply":

$$\begin{array}{c} \frac{1}{x} \quad \frac{400}{800} \\ \swarrow \quad \searrow \\ \searrow \quad \swarrow \\ 400x = 800 \end{array}$$

To solve for x , divide both sides of the equation by 400.

$$\frac{400x}{400} = \frac{800}{400}$$

$$x = 2$$

So for every dollar you spend on food, you spend two dollars on rent.

Another way to solve this problem is to write the ratio in sentence form:

food is to rent as 1 is to x

or

400 is to 800 as 1 is to x

Now multiply the two inside numbers and the two outside numbers.

400 is to 800 as 1 is to x

$$400x = 800$$

$$x = 2$$

This is really the same as "cross multiplying," but this way of setting up the problem might be easier for you to remember.

Now let's get back to question 6. First set up the problem:

$$\frac{\text{materials}}{\text{salaries}} = \frac{1}{x} \quad \text{OR} \quad \frac{9540}{79000} = \frac{1}{x} \quad \text{OR} \quad \frac{1}{x} = \frac{9540}{79000}$$

Now cross multiply:

$$\frac{1}{x} \times \frac{9540}{79000}$$

$$9540x = 79000$$

To find x, divide both sides of the equation by 9540.

$$\frac{9540x}{9540} = \frac{79000}{9540}$$

$$x = 8.28$$

Or you could set up the problem this way:

materials are to salaries as 1 is to x

or

9540 is to 79000 as 1 is to x

Now multiply the two inside numbers and the two outside numbers.

$$9540x = 79000$$

$$x = 8.28$$

Office Record Keeping

- The answer is choice c. The questions in this section require careful attention to detail. The award dates for the four possible answers are:

A217-002	June 21
D987-022	August 20
A271-001	July 2
C671-009	August 8

Contract A271-001 is the only one with an award date in July.
- The answer is choice a. Three contracts have start dates in August: A271-001, C319-030, and C671-009. Of these three, only one (A271-001) has a proposal due in May.
- The answer is choice d. The proposals for both C319-030 and C671-009 are due in July.
 - Choice a is incorrect because the proposals for both A271-001 and A217-002 are due in May.
 - Choice b is incorrect because the proposals for D998-001 and F672-009 are due in September.

- Choice c is incorrect because the proposal for B001-451 is due in June.
4. The answer is choice b. Three contracts have an award date in July: A271-001, B001-451, and C319-030. Of these three, B001-451 has the earliest scheduled start date. Contract A217-002 has an earlier scheduled start date, but it does not have an award date in July.
 5. The answer is choice b. To answer this question, you need to calculate the enrollment in art classes for each grade. There are two art classes listed in the first table: (1) Drawing and Painting and (2) Sculpture. When you add the enrollments in these classes for each grade, you get:
 - 9th grade: 24
 - 10th grade: 58
 - 11th grade: 56
 - 12th grade: 48

The 10th grade has the largest enrollment in art classes.

6. The answer is choice d. This question asks you to find the value of A, which is the total number of 11th graders enrolled in all French classes. To find the answer add the number of 11th graders enrolled in French I (5), French II (45), and French III (81). ($5 + 45 + 81 = 131$)
7. The answer is choice b. To answer this question, you need to calculate the total number of 11th graders enrolled in each of the four electives given as possible answers. When you do this calculation, you get the following results:

Spanish:	148
Driver's Education:	205
Technology:	142
Art:	56

Understanding and Interpreting Tabular Material

1. The answer is choice d. To find how many square feet of floor space were held by the average establishment in 2005, divide the public floor space, 296,067, by the number of establishments, 2,170. You get 136. But notice that the heading of the “Public Floor Space” column says, in parentheses, (000 sq. ft.). This means that the numbers in the column have three additional zeros on them. So now instead of the number of square feet being 296,067, it is 296,067,000. If you divide this number by the number of establishments, you get 136,436. The question says “approximate” number. So the correct answer is d, 136,440.

2. The answer is choice b. This question asks, “In which category of operation was the average revenue per establishment greatest in 2005?” To find the average revenue per establishment for each category, you need to divide the total revenue by the number of establishments. For example, to find the average revenue per establishment for local trucking and storage, you have to divide \$823,859 by 4,687.

But there’s a problem here. Some of the information you need is missing from the table. Does this mean you should choose d, it cannot be determined? No, because with a little work, you can fill in the missing information. Let’s see how we can fill in the blanks.

The number of establishments for general merchandise warehousing is missing, but you can find this number on the second table. It’s 2,170.

The number of establishments for special warehousing is also missing, but if you look at the possible answers you see that special warehousing isn’t one of the choices. So you don’t need to worry about that number.

But there is still one important number missing. What is the total revenue for refrigerated goods? We know the revenue for all the other categories in this column, so the first step is to add these numbers. The total for all the other categories is 1,773,069. Now subtract this number from the total at the bottom of the column and you get 351,696.

Now divide the total revenue for each category by the number of establishments in that category.

$$\text{local trucking and storage: } 823,859 \div 4,687 = 175.78$$

$$\text{general merchandise warehousing: } 610,566 \div 2,170 = 281.37$$

$$\text{refrigerated goods: } 351,696 \div 1,534 = 229.27$$

When you do the math for each of the possible answers, you see that the category with the greatest average revenue per establishment is general merchandise warehousing, choice b.

3. The correct answer is choice b. The question asks, “By what percent did the training program’s spending increase from 2003 to 2004?” Whenever a question asks about

percent increase or percent decrease, you first have to find the actual amount of the increase or decrease. You can see on the table that spending increased from 70,200 to 95,570. This is an increase of 25,370.

Now to figure the percent increase, divide the amount of the increase by the original amount. Divide 25,370 by 70,200. You get a decimal, 0.361396, and you can round this to 0.36. To convert a decimal to a percent, you move the decimal point two places to the right.

$$.36 = 36\%$$

Here's one way to remember this. Think about sales tax. Let's say the county sales tax is 8%. A sales tax of 8% equals 8 cents on the dollar, which if you wrote it out would be .08. This means that to go from a percent to a decimal you move the decimal point two places to the left.

And then you can reverse this to go from a decimal to a percent. To go from a decimal to a percent, you move the decimal point two places to the right. So .08 equals 8%. So we can see that .36 equals 36%.

4. The answer is choice a. The question asks, "By approximately what percent did income increase from 2003 to 2004?" When we look at the table we see that the total income for 2004 is missing, so we have to calculate this number. Remember how this table is set up. The totals for each source of income are ABOVE the subtotals. For example, the total for federal funds in 2004 is 64,070. This is the total of the three numbers below it.

INCOME	2003	2004	2005
Federal Funds	57,800	64,070	?
Commodities Support	20,000	26,900	29,800
CBG Grants	14,000	10,000	0
Training Contracts	?	27,170	54,840
County Funds	12,400	17,500	23,070
Grants	0	?	16,000
Smith Foundation	0	8,000	12,000
Wealth-Rite Corp.	0	5,000	?
TOTAL	70,200	?	?

So to figure out the total for grants, add the numbers for the subtotals, 8,000 and 5,000. The total for grants is 13,000.

Now we can add the totals for federal funds, county funds, and grants. The answer is 94,570.

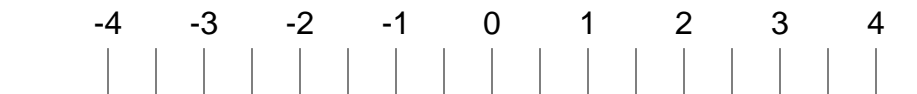
Now to find out how much income increased from 2003 to 2004, subtract 70,200 from 94,570. Income increased by 24,370.

To figure the percent increase, divide the amount of the increase by the original amount. Divide 24,370 by 70,200. You get .347. To convert this decimal to a percent, move the decimal point two places to the right. You get 34.7%. And you can round this to 35%.

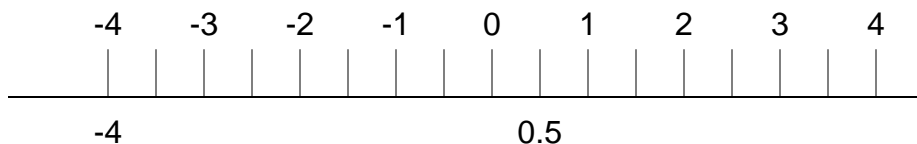
5. The answer is choice d. The table you use for this question has something new, negative numbers. The question asks how the U.S. balance of trade with South Korea changed from 1985 to 2005.

When you study the table, you see that the number for 1985 was 0.5 and the number for 2005 was negative 4.0. By looking at these numbers, you can tell that you are working with a decrease. You are going from a positive number (a number more than zero) to a negative number (a number less than zero).

The way to deal with these numbers is to make a number line. Put your zero right in the middle of the line. Everything to the right of the zero is positive, and everything to the left of the zero is negative.



For our problem, we'll mark 0.5 on our number line and then negative 4. Now look at how much you have to move to get from one number to the other one. The difference between zero and negative 4 is four and the difference between zero and 0.5 is 0.5, so the total difference is 4.5.



Now we know that the balance of trade between the U.S. and South Korea decreased by \$4.5 billion dollars between 1985 and 2005.

To find the percentage decrease, divide the amount of the decrease by the original amount. Negative 4.5 divided by 0.5 is negative 9.0.

$$-4.5 \div 0.5 = -9.0$$

When you divide a negative number by a positive number, the answer is always a negative number.

Now we have to convert this number to a percent. To do this, we need to move the decimal point two places to the right. The answer is negative 900%.

$$-9 = -900\%$$

Preparing Written Material

1. The answer is choice d. One way to approach these questions is to look for the transition words, words that point back to the previous sentence. Let's look at the transition words in these five sentences. Sentence 1 begins "For these reasons." This sounds like a "summing up" statement. You know that it can't be the first sentence, so choice a, which starts with this sentence, is wrong. Let's look at the other choices. Choice b begins in this order: 2-3-4. Sentence 4 begins with the phrase "For example." What does this refer to? It is obvious that this is an example of the statement in sentence 2. So sentence 4 should come immediately after sentence 2. This rules out choice b. Choice c is a definite possibility, but it ends with sentence 5, which sounds more like an introductory sentence than a concluding sentence. Choice d, the correct answer, ends with sentence 1, which we said makes a good "summing up" statement.
2. The answer is choice b. Again you might approach this question by looking at the transition words. Every sentence except sentence 4 contains a transition that refers back to something that has already been said. Therefore, sentence 4 must be the first sentence. This rules out choice c. Let's look at the other choices. Choice a has sentence 3 after sentence 4, which seems possible, but the next sentence begins with the words "This disagreement." So far there has been no mention of a disagreement. So this rules out choice a. Choice d has the same problem. "This disagreement" appears before any discussion of a disagreement.
3. The answer is choice a. Let's look at the choices one at a time, keeping an eye on the transition words. Choice b looks like a good possibility at first, but it ends with sentence 4. This would make a good first sentence because it introduces the subject, but it makes no sense as a conclusion. Choice c has the same problem. Choice d starts well, but then it ends with sentence 1 following sentence 3. It would be smoother and more logical to have sentence 1 immediately after sentence 4, as it is in the correct answer, choice a.
4. The answer is choice c. Probably the best way to approach these questions is by process of elimination. Look for something wrong in each of the choices. The one with nothing wrong is the correct choice. Choice a is incorrect because it says something different from the original. The original says that snowboarding is becoming an increasingly popular alternative to skiing. Choice a says that snowboarding has become *more* popular than skiing. Choice b is incorrect because it is boring and repetitious to start three sentences in a row with the same word. Choice d is incorrect because the subject of the first sentence is plural ("Adventure *and* risk taking") but the verb is singular ("is"). The phrase "to some degree" is wordy and unnecessary.

5. The answer is choice d. Choice a is incorrect because it needs some sort of transition (such as “therefore”) to show the relationship between the second and third sentences. Choice b is incorrect because it does not offer an explanation of why computers have increased paperwork. The original suggests that people are generating more paperwork because computers have made it easier to do so. Choice c is incorrect because it sounds awkward and repetitious and it says nothing about the “paperless office.”
6. The answer is choice c. Choice a is incorrect because the first sentence contains two misplaced phrases: “in an accident” and “by the air bag.” Because these phrases are positioned inappropriately, the sentence is awkward and confusing. Choice b is incorrect because it changes the meaning of the original. The original says that car seats should be installed according to the manufacturer’s instructions. Choice b says that they should be installed by the manufacturer. Choice d is incorrect because, unlike the original, it says nothing about proper *installation* of safety seats.

Alphabetizing and Name and Number Checking

1. The answer is choice b. To prepare for this type of question, write out the alphabet on a sheet of scrap paper before you begin the test. It is much easier to find the answer to questions like this on paper than in your head.
2. The answer is choice d. The largest of these numbers is 6365952 and the second largest is 6365863. If 6365863 is reversed, the second digit is 6.
3. The answer is choice c. In the word alcoholism, the letters a and c are separated by one letter, as they are in the alphabet.
4. The answer is choice a. The words matter, tartar, marriage, and leather have a letter repeated other than the first or last letter. The other words all have letters repeated, but in every case the letter is the first or last letter in the word.
5. The answer is choice c. This is a two-step question. The first step is to find every place where the number 3 is immediately after an even number.
2 3 4 3 4 5 6 7 3 4 8 3 4 7 7 3 2 4 4 3 2
Now see how many of these 3’s are followed immediately by the number 4.
2 3 4 3 4 5 6 7 3 4 8 3 4 7 7 3 2 4 4 3 2
6. The answer is choice b. The series huplkhi and mkjdgef are identical in Column A and Column B.
7. The answer is choice a. This is another two-step question. First, find the smallest of these numbers. The smallest of these numbers is 2703928. Now find the sum of the last two digits in this number. The sum of the last two digits is 10.
8. The answer is choice b. The letter I is three letters beyond the letter F in the alphabet. The letter T is three letters beyond the letter Q.

Scheduling

1. The answer is choice d. First, let's see if we can easily eliminate any of the answers. The question asks about a Tuesday, and we know that David does not work on Tuesdays. Any answer that includes David is incorrect. So we can eliminate choice c. Now let's look at the other choices.

Let's make a chart. Write Tuesday, May 9, on your scrap paper. Make three columns under that date, one labeled "In Training," one labeled "Working in the Unit," and one labeled "Not Working." Now try plugging each of the remaining choices into the "in training" column and see who's left for the "working in the unit" column.

Tuesday, May 9

In Training	Working in the Unit	Not Working

With choice a, you have Albert, Frank, Ginnie and Hal in training and three other employees working in the unit.

Tuesday, May 9

In Training	Working in the Unit	Not Working
Albert, Frank, Ginnie, Hal	Bea, Carol, Edward	David

Would this schedule work? No, it wouldn't. With this schedule it would not be possible for Carol to attend the training. Carol doesn't work on Thursdays, so she has to attend the training on Tuesday.

Choice b has three employees in training and four working in the unit.

Tuesday, May 9

In Training	Working in the Unit	Not Working
Albert, Bea, Carol	Edward, Frank, Ginnie, Hal	David

This schedule would work for Tuesday, May 9, but what about May 11, the other day reserved for part 2 of the training?

Thursday, May 11

In Training	Working in the Unit	Not Working
David, Edward, Frank, Ginnie, Hal	Albert, Bea	Carol

The five employees who don't take the training May 9 will have to take it May 11, but that will leave only two employees working in the unit. So the roster in choice b won't work.

Choice d is correct.

Tuesday, May 9

In Training	Working in the Unit	Not Working
Albert, Bea, Carol, Edward	Frank, Ginnie, Hal	David

With Albert, Bea, Carol, and Edward in training, you still have three employees working in the unit. And the four employees not scheduled for May 9th can take the training on May 11.

- The correct answer is c. Before we make a chart, let's see if we can eliminate any of the answers. The question asks about Thursday, May 11, and we know that Carol does not work on Thursday, so any answer with Carol in it is wrong. So right away we can eliminate choice a. Now let's look at the other answers.

Choice b has David, Frank, and Ginnie in training and four employees working.

Thursday, May 11

In Training	Working in the Unit	Not Working
David, Frank, Ginnie	Albert, Bea, Edward, Hal	Carol

This roster would work for May 11, but it would create a problem for May 9, the other day when part 2 of the training is given.

Tuesday, May 9

In Training	Working in the Unit	Not Working
Albert, Bea, Carol, Edward, Hal	Frank, Ginnie	David

The five employees who did not take part 2 on May 11 would have to take it on May 9, but this would leave only two employees working in the unit.

You have probably figured out by now that you need to schedule four employees for training on each day. If you schedule only three, you cannot schedule the remaining five for the other day when that part of the training is given. If you try to schedule five per day, there will only be two employees left in the unit.

Choice d has Bea, Edward, Frank, and Ginnie in training and three employees working in the unit.

Thursday, May 11

In Training	Working in the Unit	Not Working
Bea, Edward, Frank, Ginnie	Albert, David, Hal	Carol

Would this work? No, because with this schedule it would not be possible for David to attend the training. David doesn't work on Tuesdays, so he has to attend the training on Thursday.

Choice c is correct.

Thursday, May 11

In Training	Working in the Unit	Not Working
Albert, Bea, David, Edward	Frank, Ginnie, Hal	Carol

Four employees attend the training, and there are three employees working in the unit.

3. The answer is choice a. Again, let's see if we can easily eliminate any of the answers. The question concerns a Tuesday. David doesn't work on Tuesday. So any answer that includes David is wrong. So we can eliminate choice c. Now let's look at the other answers.

Choice b has Albert, Ginnie, and Hal in training.

Tuesday, May 2

In Training	Working in the Unit	Not Working
Albert, Ginnie, Hal	Bea, David, Edward, Frank	David

But we have seen that you need to schedule four employees for each day of training. If you schedule only three, you will not be able to fit the remaining five into the other session for this part of the training.

Choice d has a problem because it doesn't include Carol.

Tuesday, May 2

In Training	Working in the Unit	Not Working
Albert, Bea, Edward, Frank	Carol, Ginnie, Hal	David

Carol doesn't work on Thursdays, so she has to take the training on a Tuesday, so she has to be included in the roster for May 2.

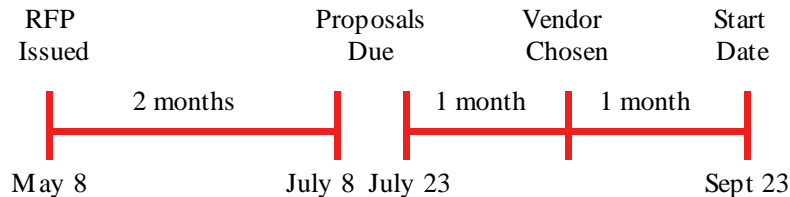
Choice a is correct.

Tuesday, May 2

In Training	Working in the Unit	Not Working
Carol, Frank, Ginnie, Hal	Albert, Bea, Edward	David

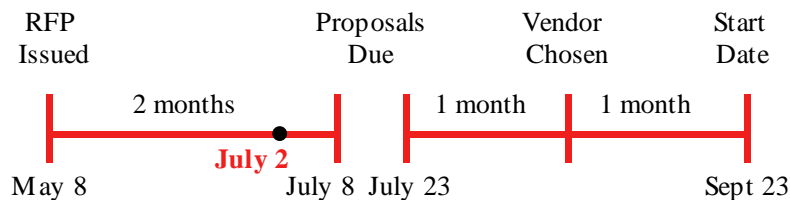
Four employees attend the training, and three remain to work in the unit.

4. The correct answer is choice a. Before you try to answer these questions, it might be a good idea to make a little chart on your scrap paper to show how the four dates are related.

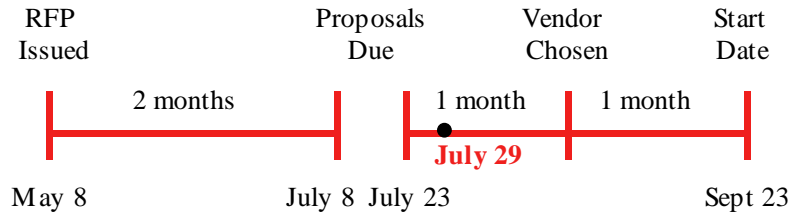


If you look at the chart you see two important pieces of information. The date when proposals are due must be at least two months after the RFP is issued and at least two months before the start date. July 22 fits both of these requirements.

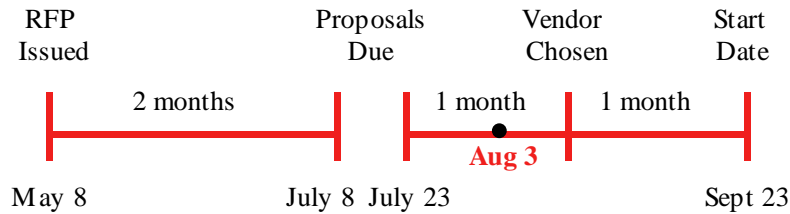
Choice b, July 2, is too early because proposals can't be due until at least two months after the RFP is issued.



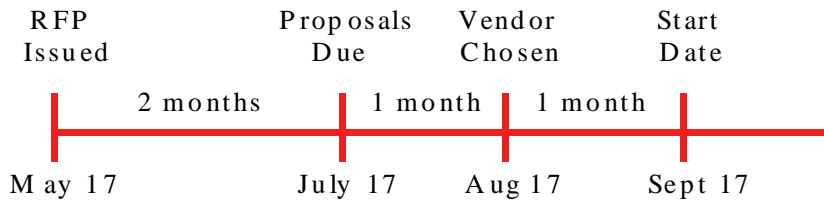
Choice c, July 29, is too late because you have to allow at least two months between the date proposals are due and the start date.



Choice d, August 3, is too late for the same reason.

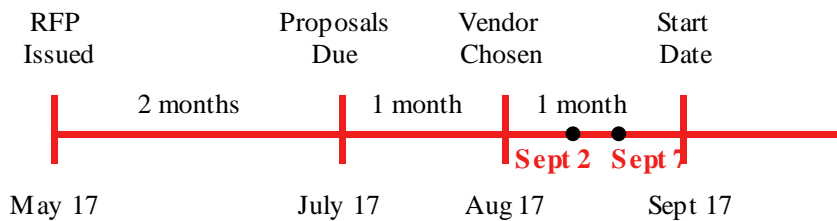


5. The answer is choice d. Let's make another chart.

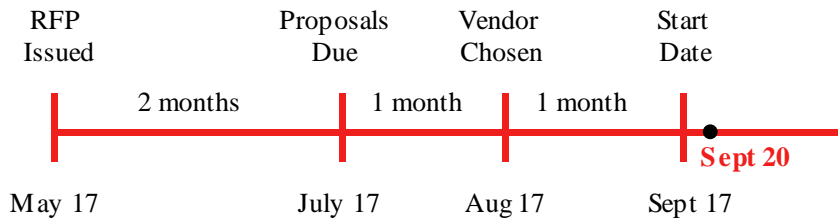


You see that that there must be at least four months between the date the RFP is issued and the start date.

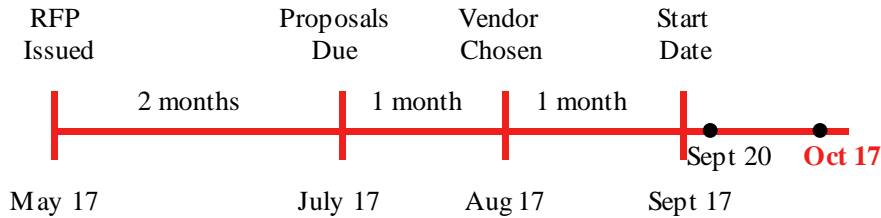
Choices b and c September 2 and September 7, are incorrect because they are less than four months after the date the RFP was issued.



Choice d, September 20, is at least four months after the date the RFP was issued.

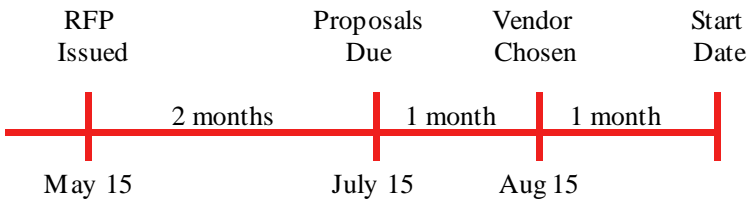


Choice a, October 17, is also at least four months after the RFP was issued, but the question asks, of the following choices, which is the earliest possible start date?



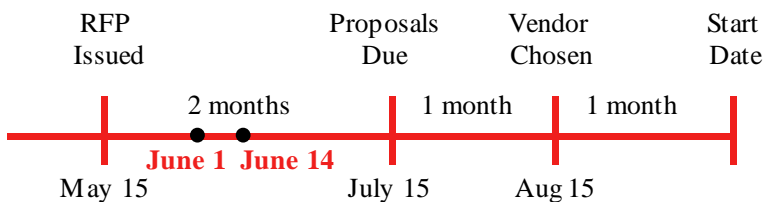
So the correct answer is choice d.

6. The answer is choice b. Let's make another chart.

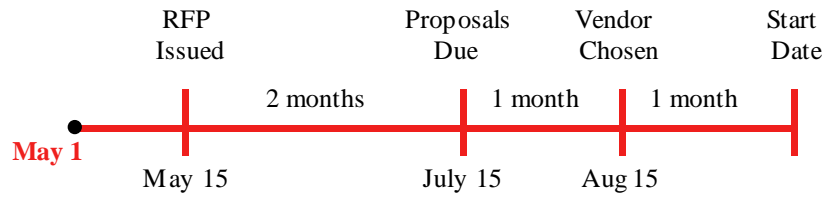


The vendor for this contract will be chosen on August 15. If you look at the chart, you see that the RFP must be issued at least three months before the vendor is chosen.

Choices a and d are incorrect because they are not at least three months before August 15.



Choice c is possible, but the question asks, of the following, which is the latest date the RFP could be issued?



So the answer is choice b.

