Placement Test Review Guide
Triton College Placement Test

Student success at Triton is our top priority. To help you be successful, Triton requires all incoming credit students to take placement tests before enrolling in credit courses. The policy ensures that students know their level of proficiency in reading, writing, and math and are aware of the college’s recommended path of remediation. The placement test results are used to aid counselors as they help you plan for the courses you need to take. Not all students are required to take the placement test. Upon admission to the college, Counseling Center personnel, using specific waiver criteria, determine whether you are required to take the placement test.

THE COMPASS® EXAM

Triton College uses the COMPASS® exam which is a computerized test that will evaluate your skill levels in Reading, Writing, and Math. The Reading and Math tests are untimed, the Writing test is timed. The COMPASS® program adjusts the item difficulty level to your individual skills, eliminating items that are too easy or too difficult. The COMPASS® results are available within seconds upon completion of testing and you'll receive a copy of your results and course recommendations.

COMPASS® is not used like a traditional test. There is generally no "passing score." Rather, COMPASS® scores indicate areas in which you are strong and areas in which you may need help. Thus, COMPASS® can identify problems in major subject areas before they disrupt your educational progress, giving you the opportunity to prepare more effectively for needed courses.

SCHEDULING TO TAKE THE COMPASS® EXAM

The placement tests are given on a walk-in basis, at no charge to the student. A nominal fee will be charged for students wishing to retake the placement test.

The last test will begin 2 hours prior to closing time.
* Testing times may vary. Please call (708) 456-0300, Ext. 3602.

If you are a distance education student and cannot attend an on-campus test session, you will need to take the test in a proctored environment. Test administration will be at an approved testing facility. It is the student’s responsibility to find a testing location suitable for the college placement test.

After finding an approved testing facility willing to administer the exam, Triton College will contact the administrator with all the necessary information. The proctor will supply you with all necessary information needed to take the test. You will be mailed the results in a timely manner.

The Assessment Center is located in the Student Center, Room B-111. For additional information on this process, please contact the Assessment Services Office at (708) 456-0300, Ext. 3602.

IMPORTANT

Take your placement test seriously!

Preparing for your testing session can save you both time and money. Placing into the right courses the first time will help you achieve your educational goals in a timely manner.
ASSESSMENT SERVICES
FREQUENTLY ASKED QUESTIONS

• **What is the college placement test?**
The primary goal for Triton College is to provide opportunities for students to be successful. To support this success, the college placement test is the tool used to help determine appropriate course placement for new students. Triton College uses the COMPASS®, a computer-based assessment developed by ACT, Inc., as its placement exam. The test assesses students’ skills in mathematics, reading, and writing. A written essay is used for the writing assessment.

• **Do I need to take the placement test?**
To demonstrate that they possess basic skills necessary for the success in their selected program of study, all new students enrolling in college credit courses at Triton College are required to complete college placement exams or request a waiver.

• **How does the placement test impact my success at Triton?**
The placement exam is designed to help students to become more aware of their academic strengths in the areas of mathematics, reading, and writing. Each of these skills may be necessary to our students’ success in the classroom. Using the placement results, students will be able to make more informed decisions about course selection in consultation with their counselor. Please note that placement test results alone do not determine a student’s overall success at Triton College.

• **How long are test scores valid?**
Test scores are valid for two years from the date of the first examination.

• **Can I retake the placement test if I don’t like my scores?**
Students are allowed to retake the placement test once during the first year and once during the second year. If students are enrolled in a math or English course, they must wait until they have completed the course before retaking the COMPASS®.

• **How can I qualify for a waiver of the placement test?**
Students may receive a waiver of all or a portion of the placement exam requirement if they possess one or more of the following:
  - ACT-English and Reading scores of 20 or higher within the last two years
  - ACT-Math score of 22 or higher within the last two years
  - Documentation of a grade of “C” or higher in college level English and/or Mathematics courses from a regionally accredited institution
  - Approval of the Dean or designee

• **How can I prepare for the placement test?**
Students may prepare for the placement exam by completing the review provided at www.triton.edu/placementreview. Students may also contact the Academic Success Center at extension 3341 for assistance with test preparation.

• **Is there a fee for the placement test?**
The first placement test is offered at cost to students. However, students will be required to pay a minimal fee to retake the exam.

• **How long does it take to complete the test?**
It takes approximately 2-2 ½ hours to complete the full placement exam. The math and reading tests are untimed. However, students have 45 minutes to complete the written essay.
• **How can I receive accommodations to take the placement test?**

Students who desire accommodations should first contact Triton’s Center for Access and Accommodative Services (CAAS) prior to going to the Testing Center. CAAS staff will then work to ensure that appropriate accommodations are provided so that students will have an optimal testing experience.

• **Do I have to take all three subject placement tests at the same time?**

While we strongly encourage students to complete all of the subject tests at one time, they may decide to take the tests on different dates. Students will need to notify testing staff prior to examination of the tests that they desire to take on a given day.

### TIPS FOR TAKING COMPASS® TEST

1. Review the practice testing material before you take the test.
2. Relax! The COMPASS® test is designed to help you succeed in school. Your scores help you and Triton College determine which courses are most appropriate for your current level of knowledge and skills. Once you identify your academic strengths and weaknesses, you can get the help you need to improve underdeveloped skills before they interfere with your learning.
3. You will be able to concentrate better on the test if you get plenty of rest and eat properly before the test. You should also arrive a few minutes early so you can find the testing area, bathrooms, etc., and have time to gather your thoughts before the test begins.
4. Be sure you understand the directions for each test before that test session begins. Ask questions if you need to.
5. Read each question carefully until you understand what the question is asking. If answering an item requires several steps, be sure you consider them all.
6. Be sure to answer every item. You are not penalized for guessing. Your score will provide more useful placement information if you answer every item, even if you guess.
7. Don't be afraid to change an answer if you believe that your first choice was wrong.
8. If you have a problem or question during the test, raise your hand and the test administrator or proctor will help you. Although they cannot answer test questions for you, they can help you with other types of problems.
9. 

### Course Placement

Based on your final COMPASS® placement test score you may need to meet with a Counselor to determine which courses you should take. If you've taken all three tests you will receive three different course placement possibilities. The testing center has course placement details to help you understand your scores. Students are allowed to retake the placement test once during the first year and once during the second year. If students are enrolled in a math or English course, they must wait until they have completed the course before retaking the COMPASS®. However, students will be required to pay a small fee to retake the exam. We encourage you to review this material before taking the test or at [www.triton.edu/placementreview](http://www.triton.edu/placementreview). Test scores are valid for two years.
The COMPASS® assesses three academic areas, Reading, Writing, and Math. The first practice test we will review is Reading.

Reading

The COMPASS® Reading Placement Test emphasizes your ability to construct meaning from what is read, focusing on items that assess reading comprehension. There are five types of questions in this test:

- Prose Fiction passages emphasize the narration of events and revelation of character.
- Humanities passages describe or analyze ideas or works of art and craft.
- Social Sciences passages present information gathered by research.
- Natural Sciences passages present a science topic along with an explanation of its significance.
- Practical Reading passages present information relevant to vocational or technical courses.

The majority of the COMPASS® reading passages are excerpts from copyrighted material or original works written for ACT, Inc. The reading level of all passages is approximately equal to what you would encounter in the first year of college. The average length of the passages is approximately 240 standard words. All passages are accompanied by up to five reading comprehension questions. The comprehension questions items are divided into several categories: referring items, reasoning items, and vocabulary items. Referring items pose questions about material explicitly, or clearly, stated in a passage. Reasoning items pose questions to determine implicit, or implied, meanings and go beyond the information that is explicitly presented. It is critically important to understand the type of question you are being asked in order to develop a critical understanding of the text. It is also important to develop an understanding of how specific words are used in the context of the story and to determine the specific meaning of difficult, unfamiliar, or ambiguous words based on the surrounding context. In order for you to be successful with the reading portion of the placement test you need to have a clear understanding of the reading requirements.
Understanding Effective Reading

Taking the COMPASS® assessment requires you to be an active reader. What is an active reader? Active readers pay close attention to what they're reading in order to make the material meaningful. This means you can't rush through the material or read the information slowly. When you read slowly you've forgotten the details at the beginning by the time you've reached the end. Active reading requires you to do several things.

First, you must ask questions about the information you're reading.

* Are there unfamiliar words or phrases?
* Can you determine the meaning of the word from the surrounding information?
* Is any of the information in the passage familiar to you? Have you heard of something similar?
* What is the main idea of the passage?
* Do you understand what the question is asking?

By asking yourself questions as you read you keep yourself alert and focused to the author's message and purpose for writing the information.

Second, if you're not sure what the information in the passage means go back and reread the confusing parts.

* What is most confusing and why?
* Do you already know something about the topic that can help you figure this information out?

Finally, think about what the passage is about.

* What did you just read and does it make sense? Can you summarize the details?
* Can you put the information into your own words?
* Review the question and all responses; are there any responses that simply don't make sense?
Terms You Should Know

1. **Referring Skills** - Test items that focus on referring skills require the student to derive meaning from text by identifying and interpreting specific information that is explicitly stated, such as,
   a. Recognize **main ideas** and **supporting details** of paragraphs and passages
   b. Identify important **factual** information
   c. Identify **relationships** among different components of textual information

2. **Reasoning Skills** - Test items that focus on reasoning skills require students to determine implicit meanings and to go beyond the information that is explicitly presented, such as,
   a. Ability to **determine meaning** from context
   b. **Infer** main ideas and relationships
   c. **Generalize** from given information and draw conclusions or make predictions
   d. **Draw appropriate conclusions**
   e. **Make appropriate comparisons**

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Main Idea

Understanding the main idea of a reading passage helps you determine what the passage is about. You should be able to answer the question, "what is the point of this information"? In order to find the main idea of a passage you have to do the following:

* Read the entire passage and answer the questions (where information is available):
  * what is the passage about?
  * who is the passage about?
  * where does the information in the passage take place?
  * what time period does the passage refer to?
  * why was the passage written?
  * how does the passage describe specific details?

* Next, write a short summary of the information you've outlined above using 20-words or less.

* Finally, look for your summarized information in the question possibilities.

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Supporting Details

In order to fully understand a passage you must understand the details that support the main idea and not get to these elements confused. The supporting details will provide additional information about the main idea. This information may be presented as facts, statistics, examples, or a definition, etc. all of which can support the main idea.
For example, if someone were to ask you why you purchased your new car (main idea) you would communicate your 'examples' for the purchase by using some of the following details:

* good price
* other car stopped working
* needed something bigger/smaller
* loved the color
* etc........

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**Factual Details**

Many times the ideas expressed in the text may be the opinions of the writer, not actual facts based on evidence. Active readers must determine the difference between the factual content and the author's opinion. *Merriam Webster's Dictionary* defines fact as "something that has actually happened; existed; or statements based in truth or reality". On the other hand, *Merriam Webster's Dictionary* defines opinion as something that "indicates a view, belief which is stronger than an impression, sentiment, or conception."

When an author is expressing an opinion they may use specific words or phrases which indicate which statements are opinion, such as,

- Many people claim that ........
- Most experts suspect that ........
- The instructor's view wasn't ........

On the other hand, the author may use specific words or phrases which indicate which statements are facts, such as,

- The research confirms ........
- According to the results........
- The instructor's comments were as follows........

**FACT** and **OPINION**:

It has been said the President Obama is very technically savvy because he is the first President to carry a smartphone with Internet and E-mail access but many feel that all this technology isn't necessary.

**Inference/Inferring**

Many times writers don't tell you exactly what something may mean or how things in a story relate. The writer will use specific details to help you make an inference to the meaning but you have to understand how to use the clues. Making inferences or inferring the meaning of a passage can be like being a detective; you have to look at all the details and understand how they fit together to produce meaning.
Active readers are able to apply their own knowledge about specific topics and apply that information to what they are reading. This is why reading often and reading a variety of material is important; inferring is only beneficial if you understand a wide variety of concepts. For example, if you don't read a lot and you think the world is flat you're going to have trouble understanding information that refers to the earth as a round sphere.

**Relationships**

Understanding the relationships of information within the passage will help you understand the information presented in the passage. Identifying the relationships that exist between within sentences and between sentences can help you identify the author's purpose and the main idea and supporting details of the passage. Relationship patterns can usually be determined by specific words within the passage that are used to make logical connections between the information that's presented. For example, **comparison and contrast** tells readers when something is similar or different contains transitions words such as those listed below. You can look for clue or transition words to help you determine the relationships in a passage. Such cause-effect clue words are:

- A few examples of words that indicate a comparison include:
  - both
  - likewise
  - similar
  - just as
  - alike
- A few examples of words that indicate contrast include:
  - although
  - despite
  - by contrast
  - unlike
  - yet

But sometimes you must infer the relationship that is present in the passage. For example, a passage about global warming (cause) may list a variety of reasons or effects such as too much driving, people don't recycle, water pollution, etc. In this instance you will combine the details in order to determine the relationship and where the author is going with the information presented.

Additional relationship patterns include:

- **time order** - tells readers when something has happened and contains transition words such as: first, second, third, before, after, during, etc.
- **space order or description** - tells readers where something is and contains transition words such as: below, above, behind, in front of, etc.
- **definition** - tells readers what specific words or phrases mean and contains transition words such as: means, defined as, consists of, is called, etc.
• **example** - provides readers with a concrete details of the idea the author is trying to communicate and contains transitions words such as: for instance, such as, for example, etc.

• **comparison and contrast** -

• **cause-effect relationships** exist when an event or something occurs that causes something else to happen, a cause makes something happen; an effect is what happens as a result of that cause.

• **classification** - tells readers there are a variety or lists of things and contains transitions words such as: several kinds, different types, number of..., etc.

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**Determine Meaning From Context**

During many reading activities you'll encounter words or terms that are unfamiliar but critical to your understanding of the passage. Identifying the context clues within the passage will help improve your comprehension of the material. Context clues are hints the author provides to determine the meaning of a word or term and are usually located in the same sentence or surrounding sentences. There are four types of context clues:

- **synonyms**
- **antonyms**
- **examples**
- **general**

**Synonyms** are words that have a similar or same meaning as the unknown word or phrase. For example, *small* is a synonym of *little*. Signal words that indicate the author is providing an idea what the unknown word may mean include,

- like
- also
- as well as
- in other words
- similar to

**Antonyms** are words that have the opposite meaning of the unknown word or phrase. For example, *small* is an antonym of *tall*. Signal words that indicate the author is providing a contrasting idea regarding the meaning of the unknown word may include,

- on the other hand
- in contrast
- although
- unlike
- however
Examples are words that may provide a description or explain the unknown word, phrase, or idea. For example, in reading a sentence about the weather you may see something like the following, My sister is a cautious person, for example, she never goes out after dark. In this example the phrase, "for example" serves as the context clue because it provides the example which describes the word "cautious". Signal words that indicate the author is providing examples regarding the meaning of the unknown word may include,

- for example
- for instance
- such as
- to illustrate

General context clues may be more difficult to locate. You will need to use your background knowledge and determine what you know about the topic already and what makes the most sense in terms of the additional words or phrases surrounding the unknown word. For example, "Mandatory driving tests should be required for everyone over the age of 70 without exceptions." If you didn't know what the word "mandatory" meant you can use your background knowledge and perhaps personal experience of seeing older drivers on the road and the difficulties they may experience while driving. The phrase, "without exceptions" also helps you understand the meaning of the word.

Generalization, Prediction & Drawing Conclusions

In order to generalize the information you've read you need to make sure you understand which idea in the passage is the main idea and which statements support that idea. Based on these details, you'll need to draw a conclusion or make a prediction regarding the overall purpose of the passage. Making predictions allows you to use your background knowledge and the information presented in the text and think about what may be the purpose for providing the information in the passage.

When you draw a conclusion you are essentially adding information you know to what's presented in the passage. What 'gaps' does the author leave in the passage that you will need to fill in based on what you may already know.

You can also draw conclusions when taking a test. You will need to look at the answer responses provided and determine which choices are the least likely. Re-read the passage to determine if the remaining response fits with the information given.

Types of COMPASS Assessment Questions

The reading comprehension items in the COMPASS assessment fall into two general categories: (1) referring items: which are questions that focus on information that is explicitly stated (obvious) and determine the meaning of words based on the information clearly presented in the passage and (2) reasoning items: which are questions that focus on the implicit (not obviously stated) meaning of the passages and requires you to draw conclusions, comparisons, and generalizations about the
information you've read. The reasoning questions also ask you to determine the specific meaning of
difficult, unfamiliar, or ambiguous words based on the surrounding information.

For example, read the passage below. Examples of both types of questions are included. Once you've
read the information use the active reading strategies we've discussed to determine how you would
answer each question below. Click the 'next page' button at the bottom of the page to begin the practice
quiz for this passage.

Sample Passage 1

Regular Tune-ups

Regular tune-ups of your heating system will cut heating costs and will most likely increase the
lifetime and safety of the system. When a service technician performs a tune-up, he or she should test
the efficiency of your heating system.

The technician should measure the efficiency of your system both before and after servicing it
and provide you with a copy of the results. Combustion efficiency is determined indirectly, based on
some of the following tests: 1) temperature of the flue (or chimney); 2) percent carbon dioxide or
percent oxygen in the atmosphere; 3) presence of carbon monoxide in the atmosphere; and 4) draft.
Incomplete combustion of fuel is the main contributor to low efficiency. If the technician cannot raise
the combustion efficiency up to at least 75% after tuning your heating system, you should consider
installing a new system or at least modifying your present system to increase its efficiency.


Based on the passage, identify the correct response for each question.

1. The passage suggests that the presence of carbon monoxide in the atmosphere:
   A. can provide information regarding combustion efficiency.
   B. is found in 75% of heating systems tested.
   C. can be reduced by decreasing heating system draft.
   D. is the main cause of low efficiency in heating systems.
   E. is more reliable than flue temperature as an indicator of combustion efficiency.

2. According to the passage, when performing a tune-up of a heating system, the service technician
   should:
   A. ensure that the combustion efficiency is at least 25%.
   B. modify the heating system before initially measuring efficiency.
   C. measure combustion efficiency both before and after servicing the system.
   D. provide his or her supervisor with a written report of the system's efficiency.
   E. ignore the age of the heating system.
What Methods Do Andean Farmers Use?

Public debate around climate change and its effects on agriculture tends to focus on the large-scale industrial farms of the North. Farmers who work on a small scale and use traditional methods have largely been ignored. However, as the world slowly comes to terms with the threat of climate change, Native farming traditions will warrant greater attention.

In the industrial model of agriculture, one or two crop varieties are grown over vast areas. Instead of trying to use local resources of soil and water optimally and sustainably, the natural environment is all but ignored and uniform growing conditions are fabricated through large-scale irrigation and the intensive use of artificial fertilizers and pesticides. For example, a handful of basically similar potato varieties, all of which require nearly identical soil conditions, temperature, rainfall, and growing seasons, account for almost all global production. When these global crops are no longer suited to the environment in which they are grown, when their resistance to disease and pests begins to fail, or the climate itself changes, the best way to rejuvenate the breeding stock will be to introduce new genetic material from the vast diversity of crop varieties still maintained by indigenous peoples.

In contrast to the industrial model, Andean potatoes and other Andean crops such as squash and beans grown by Quechuan farmers exhibit extraordinary genetic diversity, driven by the need to adapt crops to the extraordinary climatic diversity of the region. Along the two axes of latitude and altitude, the Andes encompasses fully two-thirds of all possible combinations of climate and geography found on Earth. The Andean potato has been adapted to every environment except the depth of the rainforest or the frozen peaks of the mountains. Today, facing the likelihood of major disruptions to the climatic conditions for agriculture worldwide, indigenous farmers provide a dramatic example of crop adaptation in an increasingly extreme environment. More importantly, Native farmers have also safeguarded the crop diversity essential for the future adaptations.

Adapted from Craig Benjamin, “The Machu Picchu Model: Climate Change and Agricultural Diversity.” © 1999 by Craig Benjamin.

Based on the passage, identify the correct response for each question.

1. What is the main idea of the first paragraph?

   A. Attention to Native farming practices will lead to greater awareness of the threat of climate change.
   
   B. Popularity of small-scale farming in the North will lead to greater attention to Native farming practices.
   
   C. Global demand for food will lead to increasing efficiency of large-scale farming in the North.
   
   D. It will be worthwhile to include a greater focus on Native farming practices in public discussions concerning the threat of climate change.
E. Despite potential climate change, public debate will have little effect on industrial farming practices.

2. In the second paragraph, the information about potato-growing practices in the industrial model of agriculture serves to:

A. give an example of a potential problem that Native farming practices could help to alleviate.
B. show the likely global consequences of a possible food shortage caused by industrial farming practices.
C. show how pests and disease are less effectively resisted by crops grown in the industrial farming model.
D. give an example of how public debate has had little effect on the agricultural practices of the North.
E. give an example of how Native farming practices and industrial farming practices derive from different climatic conditions.

3. The passage states that which of the following is true of the small number of potato varieties that account for most of the potatoes produced on Earth currently?

A. They are grown in the Andean region.
B. They all require very similar soil and climate conditions.
C. They are no longer suited to their environment.
D. They are based on genetic material from crops developed by indigenous peoples.
E. They make optimal use of available soil and water resources.

4. As it is used in the passage, the underlined word fabricated most nearly means:

A. woven.
B. falsely stated.
C. fully clothed.
D. manufactured.
E. unwrapped.
Fortune Tellers

A young couple entered the restaurant in Andy’s view. They were holding hands. Andy sat back down in his chair. He felt sick. He turned and faced his father, who was eating xôi.

“What’s the matter, son?” asked his father. “I thought you were going to the birthday party.”

“It’s too late.”

“Are you sure?”

Andy nodded. He looked at the plate of xôi. He wanted to bury his face in it.

“Hi, Andy.” A voice came from behind.

Andy looked up. He recognized the beautiful face, and he refused to meet her eyes. “Hi, Jennifer,” muttered Andy, looking at the floor.

Andy said, “No, I’m eating xôi with my father.”

“Well, I’ll see you in school then, okay?”

“Yeah.” And Andy watched her socks move away from his view.

Andy grabbed a chunk of xôi. The rice and beans stuck to his fingernails. He placed the chunk in his mouth and pulled it away from his fingers with his teeth. There was a dry bitter taste. But nothing could be as bitter as he was, so he chewed some more. The bitterness faded as the xôi became softer in his mouth, but it was still tasteless. He could hear the young couple talk and giggle. Their words and laughter and the sounds of his own chewing mixed into a sticky mess. The words were bitter and the laughter was tasteless, and once he began to understand this, he tasted the sweetness of xôi. Andy enjoyed swallowing the sticky mess down. Andy swallowed everything down—sweetness and bitterness and nothingness and what he thought was love.

1. Who is telling this story?
   A. Jennifer
   B. Andy
   C. Tim
   D. Andy’s father
   E. An unnamed narrator

2. According to the passage, Tim would most likely describe the party as:
   A. mysterious.
   B. lively.
   C. dull.
   D. upsetting.
   E. remarkable.

3. Based on the last paragraph, it can be most reasonably inferred that Andy’s increasing enjoyment of eating xôi was related to:
   A. hearing Tim and Jennifer laughing and talking.
   B. the fact that it stuck to his fingernails.
   C. sitting at a table with Tim and Jennifer while he ate.
   D. the fact that his father made the xôi.
   E. seeing Tim and Jennifer eating xôi.

4. This passage is mainly about the relationship between:
   A. Andy and his father.
   B. Andy and Tim.
   C. Andy’s father and Tim.
   D. Jennifer and Tim.
   E. Jennifer and Andy.
In the 1930s, why did author Zora Neale Hurston choose Eatonville, Florida, to be the first source for her collection of folklore?

I was glad when somebody told me, “You may go and collect Negro folklore.” In a way, it would not be a new experience for me. When I pitched headforemost into the world I landed in the crib of Negroism. It was fitting me like a tight chemise. I couldn't see it for wearing it. It was only when I was off in college, away from my native surroundings, that I could stand off and look at my garment. Then I had to have the spy-glass of anthropology to look through.

I was asked where I wanted to work and I said, “Florida. It’s a place that draws people—Negroes from every Southern state and some from the North and West.” So I knew that it was possible for me to get a cross section of the Negro South in one state. And then I realized that I felt new myself, so it looked sensible for me to choose familiar ground.

I started in Eatonville, Florida, because I knew that the town was full of material and that I could get it without causing any hurt or harm. As early as I could remember, it was the habit of the men particularly to gather on the store porch in the evenings and swap stories. Even the women would stop and break a breath with them at times. As a child when I was sent down to the store, I'd drag out my leaving to hear more.

Folklore is not as easy to collect as it sounds. The ideal source is where there are the fewest outside influences, but these people are reluctant at times to reveal that which the soul lives by. I knew that even I would have some hindrance among strangers. But here in Eatonville I knew everybody was going to help me.

Adapted from Zora Neale Hurston, Mules and Men. ©1935 by J.B. Lippincott Company.

Based on the passage, identify the correct response for each question.

1. Which of the following does the author use as a metaphor for the culture in which she was born?

   A. College
   B. Garment
   C. Southern state
   D. Spy-glass
   E. Story
2. Based on the first paragraph, it is most reasonable to conclude that while in college the author:
   A. decided to become a professor of anthropology.
   B. decided that she did not want to live permanently in Eatonville, Florida.
   C. felt that her teachers prevented her from studying what she wanted.
   D. became disenchanted with anthropology.
   E. understood her own culture in new and different ways.

3. As it is used in the passage, the highlighted word material most nearly means:
   A. diversity.
   B. fabric.
   C. information.
   D. money.
   E. energy.

4. In the second paragraph, the author indicates that one reason she chose to work in Florida was that she wanted to collect folklore:
   A. from people of different geographical backgrounds.
   B. where her teachers suggested she do so.
   C. from a place she had never visited.
   D. in a state far from where she grew up.
   E. in a state with a large urban population.

5. In the first paragraph, the author’s claim, “In a way, it would not be a new experience for me,” refers to the fact that:
   A. she had already attended college in Florida.
   B. she had already collected folklore in Florida for a college course.
   C. she had already experienced new cultures by leaving home.
   D. she was already familiar with the folklore she was to collect.
   E. she had already received permission to conduct the study.

6. Based on information in the third paragraph, which of the following statements about the interactions on the porch can be most reasonably inferred?
   A. The adults encouraged the author (as a child) to stay and tell stories.
   B. Men were more frequent participants than were women.
   C. Most of the storytellers had not grown up in Eatonville.
   D. The author's parents sent her to the porch to hear the stories.
   E. One man in particular told most of the stories.
7. In the last paragraph, the author writes that folklore collecting:

A. is less difficult than it appears.
B. is easiest to accomplish in isolated places because people there freely reveal their innermost thoughts.
C. can be difficult in isolated places, even though the people there are the best sources.
D. is more difficult than publishing what has been collected.
E. is the best way to reveal what is important to people.

8. Which of the following is NOT among the reasons the author gives for her decision to collect folklore in Eatonville?

A. The people of Eatonville would be grateful that she published their stories.
B. The people of Eatonville would have many stories for her collection.
C. Eatonville and its people are familiar to her.
D. She believes that she can collect stories without doing harm.
E. She believes that the people of Eatonville will help her in her project.
In New York

When I'm in New York but feeling lonely for Wyoming I look for the Western movie ads in the subway. But the men I see in those posters with their stern, humorless looks remind me of no one I know in the West. In our earnestness to romanticize the cowboy we've ironically disesteemed his true character. If he's "strong and silent" it's because there's probably no one to talk to. If he "rides away into the sunset" it's because he's been on horseback since four in the morning moving cattle and he's trying, fifteen hours later, to get home to his family. If he's "a rugged individualist" he's also part of a team: ranch work is teamwork and even the glorified open-range cowboys of the 1880s rode up and down the Chisholm Trail in the company of twenty or thirty other riders. It's not toughness but "toughing it out" that counts. In other words, this macho, cultural artifact the cowboy has become is simply a man who possesses resilience, patience, and an instinct for survival. "Cowboys are just like a pile of rocks—everything happens to them. They get climbed on, kicked, rained and snowed on, scuffed up by the wind. Their job is 'just to take it,'" one old-timer told me.


Based on the passage, identify the correct response for each question.

1. According to the passage, cowboys are probably "strong and silent" because:
   A. their work leaves them no time for conversation.
   B. they have been cautioned not to complain.
   C. they are stern and humorless.
   D. there is no one nearby to listen to them.
   E. their work makes them too tired to talk.

2. For which of the following statements does the passage give apparently contradictory evidence?
   A. The cowboy's work takes endurance.
   B. Cowboys work alone.
   C. Cowboys are adequately paid.
   D. The cowboy's image has become romanticized in American culture.
   E. Cowboys think of themselves as humorless.

These items are not actual items from COMPASS® but are similar in content and format. These items are presented for illustrative purposes and do not constitute a full representation of item content.
## Correct Answers for Practice Reading Items

### Sample Passage 1: Regular Tune-ups
Type of Reading: Practical

<table>
<thead>
<tr>
<th>Question #</th>
<th>Correct Answer</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>Reasoning</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>Referring</td>
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### Sample Passage 2: Andean Farming
Type of Reading: Natural Science

<table>
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<th>Question #</th>
<th>Correct Answer</th>
<th>Content Category</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>D</td>
<td>Recognizing the main idea of a paragraph</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>Showing how details are related to the main idea</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>Recognizing significant details</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>Vocabulary</td>
</tr>
</tbody>
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### Sample Passage 3: Fortune Tellers
Type of Reading: Fiction

<table>
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<th>Question #</th>
<th>Correct Answer</th>
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<tbody>
<tr>
<td>1</td>
<td>E</td>
<td>Recognizing several points of view</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>Drawing conclusions from facts given</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>Recognizing significant details</td>
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<tr>
<td>4</td>
<td>A</td>
<td>Inferring cause-effect relationships</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>Inferring the main idea</td>
</tr>
</tbody>
</table>

### Sample Passage 4: Zora Hurston
Type of Reading: Humanities

<table>
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<th>Question #</th>
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<tbody>
<tr>
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<td>B</td>
<td>Recognizing significant details</td>
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<td>2</td>
<td>E</td>
<td>Drawing conclusions from facts given</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>Vocabulary</td>
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<tr>
<td>4</td>
<td>A</td>
<td>Drawing conclusions from facts given</td>
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<td>5</td>
<td>D</td>
<td>Drawing conclusions from facts given</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>Drawing conclusions from facts given</td>
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<tr>
<td>7</td>
<td>C</td>
<td>Recognizing significant details</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>Recognizing significant details</td>
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### Sample Passage 1: In New York
Type of Reading: Humanities

<table>
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<tr>
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<th>Correct Answer</th>
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<td>Referring</td>
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<tr>
<td>2</td>
<td>B</td>
<td>Reasoning</td>
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</tbody>
</table>
COMPASS Writing Skills Sample Test Questions

The Writing Skills Placement Test presents one or more passages, each containing several errors. When an error is detected in a passage, clicking on that section of the passage brings up several alternative segments of text from which a more appropriate segment can be selected and inserted automatically into the text. Items in the Writing Skills Placement Test assess basic knowledge and skills in usage and mechanics (e.g., punctuation, basic grammar and usage, and sentence structure) as well as more rhetorical skills such as writing strategy, organization, and style. Samples of items from these knowledge and skill areas are provided in the following pages.

Note that in the sample passages that follow, each section is numbered. In the computerized COMPASS Writing Skills Placement Test, sections are not numbered; instead, errors are identified by moving the cursor to the section of text in which an error is identified and then clicking the left mouse button to make the alternative text options appear. Also note that for each set of answer options, option A is always identical to the text as it appears in the passage. As such, option A represents “no change.”
Sample Passage #1

Grameen Bank

Bangladesh’s economy is based primarily on small-scale enterprises ran by self-employed men and women. These small-business owners, who make a living as shopkeepers or providers of services, face a problem common to proprietors everywhere: lack of access to credit, particularly among the early start-up phase of an enterprise. Credit, which allows people to obtain the resources and equipment he needs to make his business productive, is often, frequently unavailable to those who possess little collateral. Thus, many people which would benefit from credit are denied access to it.

The Grameen Bank, founded in 1976 by economist Muhammad Yunis, who was a fine soccer player in his youth, provides the only unique alternative via loans to prospective business owners, whether they are given only to those who fall below a certain level of assets. Instead of putting up collateral, Grameen customers are accountable with one another, congregating in small groups that meet as a week.
If one member will fail to repay a loan, the entire group is unable to obtain credit in the future thus, group members have a strong incentive to succeed and support others in the group. In the last twenty years, the Grameen Bank has lent two billion dollars, and his customers have repaid 97 percent of their loans. Such results have led to the creation of similar programs.

**Item 1.**

A. Bangladesh's economy is based primarily on small-scale
B. Bangladesh's economy's is based primarily on small-scale
C. Bangladesh's economies' are based primarily on small-scale
D. Bangladesh's economys' is based primarily on small-scale
E. Bangladesh's economies' is based primarily on small-scale

**Item 2.**

A. enterprises ran by self-employed men and women.
B. enterprises run by self-employed men and women.
C. enterprises have run by self-employed men and women.
D. enterprises was run by self-employed men and women.
E. enterprises had been run by self-employed men and women.
Item 3.
A. These small-business owners, who make a living as shopkeepers or providers of services,
B. These small-business owners, who make a living, as shopkeepers or providers of services
C. These small-business owners, who make a living as shopkeepers, or providers of services
D. These small-business owners who make a living as shopkeepers or providers of services,
E. These small-business owners; who make a living as shopkeepers or providers of services,

Item 4.
A. face a problem common to proprietors everywhere: lack of access to credit,
B. face a problem common to proprietors everywhere: lack of access credit,
C. face a problem common to proprietors everywhere: lack of access from credit,
D. face a problem common to proprietors everywhere: lack of access in credit,
E. face a problem common to proprietors everywhere: lack of access for credit,

Item 5.
A. particularly among the early start-up phase of an enterprise.
B. particularly between the early start-up phase of an enterprise.
C. particularly below the early start-up phase of an enterprise.
D. particularly during the early start-up phase of an enterprise.
E. particularly now the early start-up phase of an enterprise.

Item 6.
A. Credit, which allows people to obtain the resources and equipment he needs to make his business productive,
B. Credit, which allows people to obtain the resources and equipment they need to make their businesses productive,
C. Credit, which allows people to obtain the resources and equipment we need to make our business productive,
D. Credit, which allows people to obtain the resources and equipment one needs to make our business productive,
E. Credit, which allows people to obtain the resources and equipment you need to make one's business productive,
Item 7.
A. is often, frequently unavailable to those who possess little collateral.
B. is often unavailable many times to those who possess little collateral.
C. is often unavailable to those who possess little collateral.
D. is often unavailable frequently to those who possess little collateral.
E. is often unavailable, all the time, to those who possess little collateral.

Item 8.
A. Thus, many
B. Although, many
C. Nevertheless, many
D. Since, many
E. Anyway, many

Item 9.
A. people which would benefit from credit
B. people whom would benefit from credit
C. people whose would benefit from credit
D. people who’s would benefit from credit
E. people who would benefit from credit

Item 10.
A. are denied access to it.
B. are denying access to it.
C. deny access to it.
D. denied access to it.
E. there is access denied to it.
Item 11.

A. The Grameen Bank, founded in 1976 by economist Muhammad Yunis, who was a fine soccer player in his youth, provides.
B. The Grameen Bank, founded in 1976 by economist Muhammad Yunis, who visited the University of Michigan, provides.
C. The Grameen Bank, founded in 1976 by economist Muhammad Yunis, who studied economics at a highly regarded university, provides.
D. The Grameen Bank, founded in 1976 by economist Muhammad Yunis, who is married and has three children, provides.

Item 12.

A. the only unique alternative
B. the sole unique alternative
C. the lone unique alternative
D. a unique alternative
E. the exclusive unique alternative

Item 13.

A. via loans to prospective business owners, whether they are given only to those who fall below a certain level of assets.
B. via loans to prospective business owners, which are given only to those who fall below a certain level of assets.
C. via loans to prospective business owners are given only to those who fall below a certain level of assets.
D. via loans to prospective business owners. Which are given only to those who fall below a certain level of assets.
E. via loans to prospective business owners, when given only to those who fall below a certain level of assets.
Item 14.
A. Instead of putting up collateral, Grameen customers are accountable with one another,
B. Instead of putting up collateral, Grameen customers are accountable in one another,
C. Instead of putting up collateral, Grameen customers are accountable one another,
D. Instead of putting up collateral, Grameen customers are accountable at one another,
E. Instead of putting up collateral, Grameen customers are accountable to one another,

Item 15.
A. congregating in
B. and congregation in
C. congregate in
D. so congregating in
E. congregating between

Item 16.
A. small groups that meet as a week.
B. small groups that meet every weekly.
C. small weekly groups that meet.
D. small groups that meet weekly.
E. small groups weekly each meet.

Item 17.
A. If one member will fail to repay a loan, the entire group is unable to obtain credit
B. If one member fails to repay a loan, the entire group is unable to obtain credit
C. If one member do fail to repay a loan, the entire group is unable to obtain credit
D. If one member is fail to repay a loan, the entire group is unable to obtain credit
E. If one member failing to repay a loan, the entire group is unable to obtain credit
Item 18.
A. in the future thus, group members have a strong incentive to succeed and support
B. in the future and thus, group members have a strong incentive to succeed and support
C. in the future, thus, group members have a strong incentive to succeed and support
D. in the future, and, thus, group members have a strong incentive to succeed and support
E. in the future; thus, group members have a strong incentive to succeed and support

Item 19.
A. others in the group. In the last twenty years, the Grameen Bank has lent two billion dollars,
B. others in the group. In the last twenty years, the Grameen Bank has lended two billion dollars,
C. others in the group. In the last twenty years, the Grameen Bank lend two billion dollars,
D. others in the group. In the last twenty years, the Grameen Bank did lent two billion dollars,
E. others in the group. In the last twenty years, the Grameen Bank lends two billion dollars,

Item 20.
A. and his customers have repaid 97 percent of their loans.
B. and their customers have repaid 97 percent of their loans.
C. and its customers have repaid 97 percent of their loans.
D. and itself’s customers have repaid 97 percent of their loans.
E. and our customers have repaid 97 percent of their loans.

Item 21.
A. Such results have led to the creation of similar programs.
B. Such results: have led to the creation of similar programs.
C. Such results have led, to the creation of similar programs.
D. Such results, have led to the creation of similar programs.
E. Such results; have led to the creation of similar programs.
Item 22.

Suppose the writer wants to show that lending programs similar to the one administered by the Grameen Bank have been widely accepted. Which of the following phrases, if added to the last sentence of the essay, would best achieve that goal?

A. to make credit available
B. over the years
C. around the world
D. to encourage development
E. with some variations

Item 23.

Suppose the writer had been asked to write an essay explaining the influence of the credit system developed by Muhammad Yunis on the economy of the United States. Does this article fulfill that assignment?

A. Yes, because the article explains the work of Yunis and his success since 1976.
B. Yes, because the article says that there are similar credit programs in the United States.
C. Yes, because the economic influence of the Grameen Bank is felt throughout the world.
D. No, because the article says that similar credit systems have been established but does not specifically mention the United States.
E. No, because the article is concerned with the reputation of Yunis as an economist, rather than the credit system he developed.

Item 24.

Which of the following sentences, if added at the end of the first paragraph, would best make the point that there was a need for the Grameen Bank?

A. This led to a stagnant economy in Bangladesh.
B. Other people, however, are able to overcome a lack of credit.
C. Collateral, therefore, is essential for a healthy economy.
D. Of course, there are some start-up businesses that do not need loans at all.
E. The banks, however, are able to lend their money in other countries.
Léopold Sédar Senghor, the Senegalese poet and statesman, leading a life of mythic proportions. Born in a small West African village in 1906, Senghor had directed a movement against French colonial rule that brought Senegal independence in 1959. Senghor served as Senegal’s first elected president from 1960 to 1980. Because of Senghor’s political influence, therefore, Senegal is today one of Africa’s most stable and affluent nations.

After World War II, Senghor has entered politics and held a number of elected positions in France and Senegal between 1946 and 1959. During this time, working ceaselessly in African independence movements, all the while it emphasizes the importance of African cultural identity. Senghor’s efforts contributed to Charles de Gaulle’s grant of national sovereignty to Senegal and other West African countries in 1959.
One legend about Senghor claim that at the moment of his birth, a tree on the ground fell and split, releasing a great spirit that entered the newborn's body. Senghor himself did not believe this story, true or not, the tale, on the other hand, gives an appropriately mythic dimension to the life of a man honored for his courageous and progressively work for the freedom of African peoples.

Item 1.

A. Léopold Sédar Senghor, the Senegalese poet and statesman, leading a life of mythic proportions.
B. Léopold Sédar Senghor, the Senegalese poet and statesman, led a life of mythic proportions.
C. Léopold Sédar Senghor, the Senegalese poet and statesman, having led a life of mythic proportions.
D. Léopold Sédar Senghor, the Senegalese poet and statesman, while leading a life of mythic proportions.
E. Léopold Sédar Senghor, the Senegalese poet and statesman, in order to lead a life of mythic proportions.

Item 2.

A. Born in a small West African village in 1906,
B. Born, in a small West African village in 1906,
C. Born in a small, West African village in 1906,
D. Born, in a small West African village, in 1906,
E. Born in a small, West, African village in 1906,
Item 3.
A. Senghor had directed a movement against French colonial
B. Senghor directed a movement against French colonial
C. Senghor directing a movement against French colonial
D. Senghor to direct a movement against French colonial
E. Senghor by directing a movement against French colonial

Item 4.
A. rule that bringed Senegal independence in 1959.
B. rule that had bringed Senegal independence in 1959.
C. rule that did bringed Senegal independence in 1959.
D. rule that would of brought Senegal independence in 1959.
E. rule that brought Senegal independence in 1959.

Item 5.
A. Senghor served as Senegal’s first elected president from 1960 to 1980.
B. Senghor served as, and was officially, Senegal’s first elected president from 1960 to 1980.
C. Senghor won the election and served as Senegal’s first elected president from 1960 to 1980.
D. Senghor was voted in and served as Senegal’s first elected president from 1960 to 1980.
E. Senghor campaigned and served as Senegal’s first elected president from 1960 to 1980.

Item 6.
A. Because of Senghor’s political influence, therefore, Senegal
B. Thus, because of Senghor’s political influence, therefore, Senegal
C. Consequently, due to Senghor’s political influence, therefore, Senegal
D. Because of Senghor’s political influence, Senegal
E. On account of Senghor’s political influence, therefore, Senegal consequently
Item 7.
A. is today one of Africa’s most stable and affluent nations.
B. is today one of Africa’s most rock steady and rich nations.
C. is today one of Africa’s most stubborn and moneyed nations.
D. is today one of Africa’s most unflappable and loaded nations.
E. is today one of Africa’s most imperturbable and wealth-enhanced nations.

Item 8.
A. After World War II, Senghor has entered politics
B. After World War II, Senghor entered politics
C. After World War II, Senghor having entered politics
D. After World War II, Senghor was going to enter politics
E. After World War II, Senghor had been going to enter politics

Item 9.
A. and held a number of elected positions in France and Senegal between 1946 and 1959.
B. and held a number of positions in France and Senegal between 1946 and 1959.
C. and held some important jobs in France and Senegal between 1946 and 1959.
D. and held a number of different positions in France and Senegal between 1946 and 1959.
E. and held a number (two or three) of elected positions in France and Senegal between 1946 and 1959.

Item 10.
A. During this time, working ceaselessly
B. During this time, having worked ceaselessly
C. During this time, he, working ceaselessly
D. During this time, he worked ceaselessly
E. During this time, to work ceaselessly
Item 11.

A. in African independence movements, all the while it emphasizes the importance of African cultural identity.
B. in African independence movements, all the while it emphatic of the importance of African cultural identity.
C. in African independence movements, all the while had it emphasized the importance of African cultural identity.
D. in African independence movements, all the while emphasis was placed on the importance of African cultural identity.
E. in African independence movements, all the while emphasizing the importance of African cultural identity.

Item 12.

A. Senghor's efforts contributed to Charles de Gaulle’s
B. Senhors efforts contributed to Charles de Gaulle’s
C. Senhors’ efforts contributed to Charles de Gaulle’s
D. Senhors efforts’ contributed to Charles de Gaulle’s
E. Senhors effort’s contributed to Charles de Gaulle’s

Item 13.

A. grant of national sovereignty to Senegal and other West African countries in 1959.
B. grant of national sovereignty, to Senegal and other West African countries in 1959.
C. grant, of national sovereignty to Senegal and other West African countries in 1959.
D. grant of, national sovereignty to Senegal and other West African countries, in 1959.
E. grant of national sovereignty, to Senegal and other West African countries, in 1959.

Item 14.

A. One legend about Senghor claim
B. One legend about Senghor have claimed
C. One legend about Senghor had claims
D. One legend about Senghor has claims
E. One legend about Senghor claims
Item 15.

A. that at the moment of his birth, a tree on the ground fell and split,
B. that at the moment of his birth, a tree on the ground split and fell,
C. that at the moment of his birth, a tree split and fell to the ground,
D. that at the moment of his birth, the falling ground split a tree,
E. that a tree at the moment of his birth split the earth and fell to the ground,

Item 16.

A. releasing a great spirit that entered the newborn’s body.
B. releasing a great spirit that plundered the newborn’s body.
C. releasing a great spirit that violated the newborn’s body.
D. releasing a great spirit that charmed the newborn’s body.
E. releasing a great spirit that invaded the newborn’s body.

Item 17.

A. Senghor himself did not believe this story, true or not,
B. Senghor himself did not believe this story. True or not,
C. Senghor himself did not believe this story, true, or not,
D. Senghor himself did not believe this story true, or not,
E. Senghor himself did not believe this story true or not,

Item 18.

A. the tale, on the other hand, gives an appropriately
B. the tale, consequently, gives an appropriately
C. the tale, nevertheless, gives an appropriately
D. the tale, otherwise, gives an appropriately
E. the tale objectively gives an appropriately
Item 19.

A. mythic dimension to the life of a man honored
B. mythic dimension to the life for a man honored
C. mythic dimension to the life whom a man honored
D. mythic dimension to the life by a man honored
E. mythic dimension to the life with a man honored

Item 20.

A. for his courageous and progressively work for the freedom of African peoples.
B. for his courageous and progress work for the freedom of African peoples.
C. for his courageous and progressed work for the freedom of African peoples.
D. for his courageous and progression work for the freedom of African peoples.
E. for his courageous and progressive work for the freedom of African peoples.

Item 21.

The writer wants to add a sentence that would introduce the second paragraph’s discussion of Senghor’s activities prior to becoming president of Senegal. Which of the following sentences would best achieve this effect?

A. Educated in Dakar and Paris, Senghor began his career as a teacher in France.
B. Senghor goes on to head Senegal’s independent government for twenty years.
C. Senghor was never a very superstitious man.
D. Senghor's father was a prosperous merchant in the small village of Joal.
E. Senghor was the first president of the independent Senegal.

Item 22.

If the writer were to eliminate the information in paragraph 3 that Senghor himself did not believe the story about the tree, the essay would primarily lose:

A. a sense of Senghor’s skeptical nature.
B. insight into African politicians’ beliefs.
C. an illustration of one way a spirit can be released.
D. a suggestion of the admiration Senghor inspired.
E. the implication that all African myths involve nature.
Sample Passage #3 Zebra Mussel

An increasing number of lakes and rivers in the northern United States invaded by species no larger than a fingernail.

The zebra mussel probably steamed aboard a transatlantic ship sometime in the mid-1980s from the Caspian Sea into U.S. waterways. Despite its growth was explosive, partly because the species was preyed upon by very few native predators in its new environment. As a consequence, the zebra mussels did find a plentiful food supply. They eat huge amounts of phytoplankton, which tiny free-floating sea organisms that dwell in water. Scientists are concerned when the mussels may compete aggressively with other species that depend on the same food supply.

Being invasive, the species concerns industry, public utilities, and boat owners.

Zebra mussels cluster in huge colonies, being anchored themselves to any hard surface.

These colonies can clog your water intake pipes of electric and water treatment plants.

Fishery specialists are currently casting about and baiting their hooks to gun down
control methods that will cause the least amount of damage to water supplies and other aquatic species. Two of the alternatives exploring are interrupting the species reproductive cycle and finding a bacterium harmful only to zebra mussels.

Item 1.

A. An increasing number of lakes and rivers
B. An increasingly number of lakes and rivers
C. A number increasing of lakes and rivers
D. A number increasingly of lakes and rivers
E. An increasing of lakes and rivers

Item 2.

A. in the northern United States invaded are being
B. in the northern United States invaded have been
C. in the northern United States are being invaded
D. in the northern United States are been invaded
E. in the northern United States being invaded are

Item 3.

A. by a species no larger than a fingernail.
B. by a species no larger than, a fingernail.
C. by a species, no larger than a fingernail.
D. by a species no larger, than a fingernail.
E. by a species, no, larger than a fingernail.
Item 4.

A. The zebra mussel probably steamed aboard a transatlantic ship sometime in the mid-1980s from the Caspian Sea into U.S. waterways.
B. The zebra mussel probably steamed into U.S. waterways sometime in the mid-1980s aboard a transatlantic ship from the Caspian Sea.
C. The zebra mussel probably steamed, sometime in the mid-1980s, aboard a transatlantic ship into U.S. waterways from the Caspian Sea.
D. The zebra mussel probably steamed sometime from the Caspian Sea in the mid-1980s into U.S. waterways aboard a transatlantic ship.
E. The zebra mussel probably steamed from the Caspian Sea aboard a transatlantic ship sometime in the mid-1980s into U.S. waterways.

Item 5.

A. Despite its growth was explosive, partly because the species
B. Growth of it, explosive, partly because the species
C. It’s growth was explosive and partly because the species
D. Where its explosive growth was partly because the species
E. Once here, its growth was explosive, partly because the species

Item 6.

A. was preyed upon by very few native predators in its new environment.
B. found very few predators in its new environment.
C. found very few native predators and was seldom eaten in its new environment.
D. was preyed on by very few native predator species in its new environment.
E. was seldom eaten or preyed on by native predator species in its new environment.

Item 7.

A. As a consequence, the zebra mussels did find
B. Consequently, the zebra mussels could find
C. In contrast, the zebra mussels could find
D. In addition, the zebra mussels found
E. For example, the zebra mussels found
Item 8.
A. a plentiful food supply.
B. an adequate supply of plentiful food.
C. a sufficient supply of enough food.
D. sufficient plenty of adequate food.
E. plentiful food in adequate supply.

Item 9.
A. They eat huge amounts of phytoplankton, which tiny free-floating sea organisms that dwell in water.
B. They eat huge amounts of phytoplankton, free-floating sea organisms that are water-dwelling and tiny.
C. They eat huge amounts of phytoplankton, sea-dwelling organisms which free-floating in water.
D. They eat huge amounts of phytoplankton, tiny sea organisms that free-float in water.
E. They eat huge amounts of phytoplankton, tiny free-floating sea organisms.

Item 10.
A. Scientists are concerned when the mussels
B. Scientists are concerned that if the mussels
C. Scientists are concerned wherein the mussels
D. Scientists are concerned that the mussels
E. Scientists are concerned as if the mussels

Item 11.
A. may compete aggressively with other
B. may compete aggressively with others’
C. may compete aggressively with others
D. may compete aggressively with another’s
E. may compete aggressively with one another’s
Item 12.

A. species that depend on the same food supply.
B. species that depend on other food supply.
C. species that depend on in common food supply.
D. species that depend on simultaneous food supply.
E. species that depend on equal food supply.

Item 13.

A. Being invasive, the species concerns industry, public utilities, and boat owners.
B. The invading species concerns industry, public utilities, and boat owners.
C. The species, by its invading, concerns industry, public utilities, and boat owners.
D. The species, by its invasion, is concerning industry, public utilities, and boat owners.
E. The invasive species is being of concern to industry, public utilities, and boat owners.

Item 14.

A. Zebra mussels cluster in huge colonies, being anchored themselves to any hard surface.
B. Zebra mussels cluster in huge colonies, which can anchor themselves to any hard surface.
C. Zebra mussels cluster in huge colonies, which can anchor itself to any hard surface.
D. Zebra mussels cluster in huge colonies, which can anchor them to any hard surface.
E. Zebra mussels cluster in huge colonies, being anchored itself to any hard surface.

Item 15.

A. These colonies can clog your water intake pipes
B. These colonies can clog its water intake pipes
C. These colonies can clog their water intake pipes
D. These colonies can clog the water intake pipes
E. These colonies can clog our water intake pipes
Item 16.
A. of electric and water treatment plants. Fishery specialists
B. of electric and water treatment plants fishery. Specialists
C. of electric and water treatment plants, fishery specialists
D. of electric and water treatment plants fishery, specialists
E. of electric and water treatment plants fishery specialists

Item 17.
A. are currently casting about and baiting their hooks to gun down
B. are currently hatching plans for
C. are currently searching for
D. are currently trolling the depths of
E. are currently skimming the surface of

Item 18.
A. control methods that will cause the least amount of damage to water supplies and other aquatic species.
B. control methods that will cause the least amount of damage, most of which is difficult to repair.
C. control methods that will cause the least amount of damage to water supplies and other aquatic species (some of which are sources of food).
D. control methods, which must be approved, that will cause the least amount of damage to water supplies and other aquatic species.
E. control methods that will cause the least amount of damage (if they work) to water supplies and other aquatic species.

Item 19.
A. Two of the alternatives exploring are
B. Exploring, two alternatives are
C. Two being explored are alternatives
D. Two are explored alternatives, being
E. Two alternatives being explored are
Item 20.

A. interrupting the species reproductive cycle and finding a bacterium harmful only to zebra mussels.
B. interrupting the species reproductive cycle and finding a bacterium harmful only to zebra mussels.
C. interrupting the species reproductive cycle and finding a bacterium harmful only to zebra mussels.
D. interrupting the species' reproductive cycle and finding a bacterium harmful only to zebra mussels.
E. interrupting the species's reproductive cycle and finding a bacterium harmful only to zebra mussels.

Item 21.

Suppose the writer wishes to add a sentence after paragraph 1 that will both serve as a transition to the rest of the essay and explain the importance of the information in the paragraphs that follow. Which of the following sentences most effectively fulfills that purpose?

A. The zebra mussel will provide a difficult challenge for public utility managers.
B. The zebra mussel is only the latest in a series of immigrant species to thrive in the U.S.
C. No one knows how far south and west the zebra mussel is likely to spread, but scientists think they may be on the trail of important clues.
D. Although small in size, the zebra mussel may become a huge problem for pleasure boat owners in North American waterways.
E. Despite its size, however, the zebra mussel may have a dramatic effect on North American waterways.

Item 22.

If the writer wished to add at the end of the essay a paragraph expanding the discussion of these two alternatives, which of the following sentences would provide the most appropriate introduction?

A. Many strains of bacteria populate the sea.
B. The zebra mussel’s method of reproduction is similar to that of the oyster.
C. Ideally, these two methods could be used in combination to control the mussel.
D. Some scientists hope there is a bacteria that can damage the reproductive cycle of the species.
E. Fishery specialists are not working alone to resolve this problem; laboratories are involved.
Correct Answers for the Sample Passage #1 Items

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<td>24</td>
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<tr>
<td>22</td>
<td>C</td>
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Mathematics

The Math Placement Test is a multiple-choice test that evaluates students' ability levels in terms of basic skills such as performing a sequence of basic operations, application skills such as applying sequences of basic operations to novel settings or in complex ways, and analysis skills such as demonstrating conceptual understanding of principles and relationships for mathematical operations. The Math Placement Test offers up to five subject areas:

- Pre-Algebra
- Algebra
- College Algebra
- Geometry
- Trigonometry

To ensure variety in the content and complexity of items within each domain, COMPASS® includes mathematics items of three general levels of cognitive complexity: basic skills, application, and analysis. A basic skills item can be solved by performing a sequence of basic operations. An application item involves applying sequences of basic operations to novel settings or in complex ways. An analysis item requires students to demonstrate a conceptual understanding of the principles and relationships relevant to particular mathematical operations.

Additional practice resources can be found at:

- MyMathTest™
  - MAT045: Pre-Algebra review material
    [www.triton.edu/moveoxfer/data/Forms/DirectionsMyMathTest045.pdf](www.triton.edu/moveoxfer/data/Forms/DirectionsMyMathTest045.pdf)
  - MAT055: Algebra & Geometry I review material
    [www.triton.edu/moveoxfer/data/Forms/DirectionsMyMathTest045.pdf](www.triton.edu/moveoxfer/data/Forms/DirectionsMyMathTest045.pdf)
- Triton Math Face-to-Face Review Sessions [www.triton.edu/cgi-bin/r.cgi/department_detail.html?SESSION=snvmzqezuf&ContentID=5072](www.triton.edu/cgi-bin/r.cgi/department_detail.html?SESSION=snvmzqezuf&ContentID=5072)
- Smart Thinking Tutors (located in the Triton Student Portal and requires registration)
- West Texas A&M Virtual Math Lab [www.wtamu.edu/academic/anns/mps/math/mathlab/](www.wtamu.edu/academic/anns/mps/math/mathlab/)
Numerical Skills/Prealgebra Placement Test

Questions in the Numerical Skills/Prealgebra Placement Test range in content from basic arithmetic concepts and skills to the knowledge and skills considered prerequisites for a first algebra course. The Numerical Skills/Prealgebra Placement Test includes items from more than a dozen content areas; however, a majority of the questions come from the following categories:

- Operations with Integers
- Operations with Fractions
- Operations with Decimals
- Exponents
- Square Roots
- Ratios and Proportions
- Percentages
- Averages (Means, Medians, and Modes)

Terms You Should Know

1. Basic Math Operations - Include addition, subtraction, multiplication, and division.
2. Integers - The set of all positive and negative whole numbers, including zero.
3. Fractions - Show part of a whole that has been divided into any number of parts.
4. Decimals - Decimals are another way to write fractions with denominators such as 10, 100, and 1,000. Decimals and fractions both name part of a whole. A decimal names part of a whole that has been divided into 10, 100, 1,000, or more parts.
5. Exponents - An exponent is a number that tells how many times a number, the base, is used as a factor. For example, in the expression $4^3$, 3 is the exponent and means the number 4 is used as a factor 3 times. $4^3 = 4 \times 4 \times 4$.
6. Square Root - The square root of any given number is a number that when multiplied by itself equals the given number. For example, the square root of 81 is 9 because $9 \times 9 = 81$.
7. Ratios - A ratio is a comparison of two quantities. For example, a recipe might call for 2 cups of flour for every 1 cup of milk. You can compare the number of cups of flour used to the number of cups of milk used with the ratio two to one.
8. Proportion - A statement that two ratios are equal. For example, the ratio 2 to 1 is the same as the ratio 6 to 3.
9. Set of Data - You can use tables, line graphs, bar graphs, circle graphs, line plots, and pictographs to organize and display data. When data are organized and displayed in a graph or diagram, it is easier to see relationships between the pieces of data.
10. Mean - The mean of a set of data is the average of the values. To find the mean, add all the values and then divide the sum by the number of values in the set.
11. **Median** - The median of a set of data is the middle value of all the numbers. To find the middle value, list the numbers in order from least to greatest or from greatest to least. If there are two middle values, their average is the median.

12. **Mode** - The mode of a set of data is the value or values that occur most often in the set. If all the values in a set of data appear the same number of times, the set has no mode.

1. \(54 - 6 \div 2 + 6 = ?\)
   A. 6
   B. 24
   C. 27
   D. 30
   E. 57

2. The lowest temperature on a winter morning was \(-8^\circ F\). Later that same day the temperature reached a high of \(24^\circ F\). By how many degrees Fahrenheit did the temperature increase?
   A. 3°
   B. 8°
   C. 16°
   D. 24°
   E. 32°

3. If \(\left(\frac{3}{4} - \frac{2}{3}\right) + \left(\frac{1}{2} + \frac{1}{3}\right)\) is calculated and the answer reduced to simplest terms, what is the denominator of the resulting fraction?
   A. 24
   B. 12
   C. 6
   D. 4
   E. 3

4. \(\frac{1}{2} + \left(\frac{2}{3} + \frac{3}{4}\right) - \left(\frac{4}{5} \times \frac{5}{6}\right) = ?\)
   A. \(\frac{1}{16}\)
   B. \(\frac{17}{27}\)
   C. \(\frac{13}{18}\)
   D. \(\frac{7}{9}\)
   E. \(\frac{5}{6}\)
5. Mr. Brown went grocery shopping to buy meat for his annual office picnic. He bought $\frac{7}{4}$ pounds of hamburger, 17.85 pounds of chicken, and $6\frac{1}{2}$ pounds of steak. How many pounds of meat did Mr. Brown buy?
   A. 32.10  
   B. 31.31  
   C. 26.25  
   D. 22.10  
   E. 21.10

6. Four students about to purchase concert tickets for $18.50 for each ticket discover that they may purchase a block of 5 tickets for $80.00. How much would each of the 4 save if they can get a fifth person to join them and the 5 people equally divide the price of the 5-ticket block?
   A. $ 1.50  
   B. $ 2.50  
   C. $ 3.13  
   D. $10.00  
   E. $12.50

7. In scientific notation, $20,000 + 3,400,000 = ?$
   A. $3.42 \times 10^6$  
   B. $3.60 \times 10^6$  
   C. $3.42 \times 10^7$  
   D. $3.60 \times 10^7$  
   E. $3.60 \times 10^{12}$

8. Saying that $4 < \sqrt{x} < 9$ is equivalent to saying what about $x$ ?
   A. $0 < x < 5$  
   B. $0 < x < 65$  
   C. $2 < x < 3$  
   D. $4 < x < 9$  
   E. $16 < x < 81$
9. What value of $x$ solves the following proportion?

\[
\frac{9}{6} = \frac{x}{8}
\]

A. 5 \frac{1}{3}
B. 6 \frac{3}{4}
C. 10 \frac{1}{2}
D. 11
E. 12

10. If the total cost of $x$ apples is $b$ cents, what is a general formula for the cost, in cents, of $y$ apples?

A. \( \frac{b}{xy} \)
B. \( \frac{x}{by} \)
C. \( \frac{xy}{b} \)
D. \( \frac{by}{x} \)
E. \( \frac{bx}{y} \)

11. On a math test, 12 students earned an A. This number is exactly 25% of the total number of students in the class. How many students are in the class?

A. 15
B. 16
C. 21
D. 30
E. 48

12. This year, 75% of the graduating class of Harriet Tubman High School had taken at least 8 math courses. Of the remaining class members, 60% had taken 6 or 7 math courses. What percent of the graduating class had taken fewer than 6 math courses?

A. 0%
B. 10%
C. 15%
D. 30%
E. 45%
13. Adam tried to compute the average of his 7 test scores. He mistakenly divided the correct sum of all of his test scores by 6, which yielded 84. What is Adam’s correct average test score?

A. 70
B. 72
C. 84
D. 96
E. 98

14. A total of 50 juniors and seniors were given a mathematics test. The 35 juniors attained an average score of 80 while the 15 seniors attained an average of 70. What was the average score for all 50 students who took the test?

A. 73
B. 75
C. 76
D. 77
E. 78
Correct Answers for Sample Numerical Skills/Prealgebra Items

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<th>Correct Answer</th>
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<td>14</td>
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The Algebra Placement Test is composed of items from three curricular areas: elementary algebra, coordinate geometry, and intermediate algebra. Each of these three areas is further subdivided into a number of more specific content areas. Overall, the Algebra Placement Test includes items from more than 20 content areas; however, the majority of test questions fall within the following eight content areas:

- Substituting Values into Algebraic Expressions
- Setting Up Equations for Given Situations
- Basic Operations with Polynomials
- Factoring Polynomials
- Linear Equations in One Variable
- Exponents and Radicals
- Rational Expressions
- Linear Equations in Two Variables

Terms You Should Know

1. **Algebraic Expression** - one or more algebraic terms in a phrase. It can include variables, constants, and operating symbols, such as plus and minus signs. It's only a phrase, not the whole sentence, so it doesn't include an equal sign.
   
   **Algebraic expression:** \(3x^2 + 2y + 7xy + 5\)
   
   • In algebraic expressions, letters represent variables. These letters are actually numbers in disguise.
   • In algebraic expressions coefficients are the number part of the terms with variables.
   • In algebraic expressions constants are the terms in the algebraic expression that contain only numbers.

2. **Equations** - An equation is a mathematical sentence containing an equals sign. It tells us that two expressions mean the same thing, or represent the same number.
   
   • **Example:** Tim worked for 7 hours on Saturday and mowed 3 lawns. How much time, on average, did he spend on each lawn?
     
     o Let the letter "t" represent the average time per lawn, the unknown value. Then, \(3t\) would represent the time to mow all three lawns, and we know that this is equal to 7 hours. We can write the equation like this: \(3t = 7\) hours

3. **Product** - The answer to a multiplication problem.

4. **Polynomials** - An expression using two or more algebraic terms.

5. **Factors** - When numbers multiplied together to get a product.

6. **Factoring Polynomials** - To factor a polynomial, such as \(3x - 12\) means to write it as a product of polynomials: \(3x - 12 = 3(x - 4)\).
7. **Linear Equations** - An algebraic equation, such as $y = 2x + 7$ or $3x + 2y - z = 4$, in which the highest degree term in the variable or variables is of the first degree. The graph of such an equation is a straight line if there are two variables.

8. **Radical** - The "$\sqrt{}$" symbol is called the "radical" symbol. The expression "$\sqrt{9}$" is read as "root nine", "radical nine", or "the square root of nine".

9. **Rational Expressions** - A function that can be expressed as a quotient of polynomials, excluding division by zero.

Algebra

1. If \( x = -3 \), what is the value of \( \frac{x^2 - 1}{x + 1} \)?
   
   A. \(-4\)  
   B. \(-2\)  
   C. \(2\)  
   D. \(3 \frac{2}{3}\)  
   E. \(5\)

2. Doctors use the term maximum heart rate (MHR) when referring to the quantity found by starting with 220 beats per minute and subtracting 1 beat per minute for each year of a person’s age. Doctors recommend exercising 3 or 4 times each week for at least 20 minutes with your heart rate increased from its resting heart rate (RHR) to its training heart rate (THR), where

   \[ \text{THR} = \text{RHR} + .65(\text{MHR} - \text{RHR}) \]

   Which of the following is closest to the THR of a 43-year-old person whose RHR is 54 beats per minute?
   
   A. 197  
   B. 169  
   C. 162  
   D. 134  
   E. 80

3. When getting into shape by exercising, the subject’s maximum recommended number of heartbeats per minute (\(h\)) can be determined by subtracting the subject’s age (\(a\)) from 220 and then taking 75% of that value. This relation is expressed by which of the following formulas?
   
   A. \(h = .75(220 - a)\)  
   B. \(h = .75(220) - a\)  
   C. \(h = 220 - .75a\)  
   D. \(.75h = 220 - a\)  
   E. \(220 = .75(h - a)\)
4. An airplane flew for 8 hours at an airspeed of \(x\) miles per hour (mph), and for 7 more hours at 325 mph. If the average airspeed for the entire flight was 350 mph, which of the following equations could be used to find \(x\)?

A. \(x + 325 = 2(350)\)
B. \(x + 7(325) = 15(350)\)
C. \(8x - 7(325) = 350\)
D. \(8x + 7(325) = 2(350)\)
E. \(8x + 7(325) = 15(350)\)

5. Which of the following is equivalent to \(3a + 4b - (-6a - 3b)\)?

A. \(16ab\)
B. \(-3a + b\)
C. \(-3a + 7b\)
D. \(9a + b\)
E. \(9a + 7b\)

6. What is the sum of the polynomials \(3a^2b + 2a^2b^2\) and \(-ab^2 + a^2b^2\)?

A. \(3a^2b - ab^2 + 3a^2b^2\)
B. \(3a^2b - ab^2 + 2a^2b^2\)
C. \(2a^2b + 3a^2b^2\)
D. \(2a^2b^3 + 2a^4b^4\)
E. \(-3a^3b^3 + 2a^4b\)

7. Which of the following is a factor of the polynomial \(x^2 - x - 20\)?

A. \(x - 5\)
B. \(x - 4\)
C. \(x + 2\)
D. \(x + 5\)
E. \(x + 10\)

8. Which of the following is a factor of \(x^2 - 5x - 6\)?

A. \((x + 2)\)
B. \((x - 6)\)
C. \((x - 3)\)
D. \((x - 2)\)
E. \((x - 1)\)
9. If \(2(x - 5) = -11\), then \(x = ?\)

A. \(-\frac{21}{2}\)
B. \(-8\)
C. \(-\frac{11}{2}\)
D. \(-3\)
E. \(-\frac{1}{2}\)

10. If \(\frac{4}{5} + \left(-\frac{3}{10}\right) = x + 1\frac{1}{2}\), then \(x = ?\)

A. 2
B. 1
C. \(-1\)
D. \(-2\)
E. \(-10\)

11. For all nonzero \(r\), \(t\), and \(z\) values, \(\frac{16r^3tz^7}{-4rt^2z^3} = ?\)

A. \(-\frac{4z^4}{r^2t^2}\)
B. \(-\frac{4r^2z^3}{t^2}\)
C. \(-\frac{4z}{t}\)
D. \(-4r^4t^4z^7\)
E. \(-4r^2t^2z^3\)

12. For all \(x > 0\) and \(y > 0\), the radical expression \(\frac{\sqrt{x}}{3\sqrt{x} - \sqrt{y}}\) is equivalent to:

A. \(\frac{3x - \sqrt{xy}}{9x + y}\)
B. \(\frac{3x - \sqrt{xy}}{3x + y}\)
C. \(\frac{3x + \sqrt{xy}}{9x - y}\)
D. \(\frac{3x + \sqrt{xy}}{3x - y}\)
E. \(\frac{x}{3x - y}\)
13. For all \( x \neq -4 \), which of the following is equivalent to the expression below?

\[
\frac{x^2 + 12x + 32}{x + 4}
\]

A. \( x + 3 \)
B. \( x + 8 \)
C. \( x + 11 \)
D. \( x + 16 \)
E. \( x + 28 \)

14. Which of the following is a simplified expression equal to \( \frac{9 - x^2}{x - 3} \) for all \( x < -3 \)?

A. \( 3x \)  
B. \( x + 3 \)  
C. \( x - 3 \)  
D. \( -x + 3 \)  
E. \( -x - 3 \)

15. What is the slope of the line with the equation \( 2x + 3y + 6 = 0 \)?

A. \( -6 \)  
B. \( -3 \)  
C. \( -2 \)  
D. \( -\frac{2}{3} \)  
E. \( \frac{2}{3} \)

16. Point \( A (-4,1) \) is in the standard \((x,y)\) coordinate plane. What must be the coordinates of point \( B \) so that the line \( x = 2 \) is the perpendicular bisector of \( \overline{AB} \)?

A. \((-6, 1)\)  
B. \((-4, -1)\)  
C. \((-4, 3)\)  
D. \((-2, 1)\)  
E. \((8, 1)\)
## Correct Answers for Sample Algebra Items

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College Algebra Placement Test

Items in the College Algebra Test focus on algebra knowledge and skills in a variety of content areas. The majority of items come from the following content areas:

- Functions
- Exponents
- Complex Numbers
- Arithmetic and Geometric Sequences and Series
- Matrices (basic operations, equations, and determinants)

Terms You Should Know

1. **Functions** - Associates one quantity, the argument of the function, also known as the input, with another quantity, the value of the function, also known as the output.

2. **Complex Numbers** - Complex numbers extend the idea of the one-dimensional number line to the two-dimensional complex plane by using the number line for the real part and adding a vertical axis to plot the imaginary part.

3. **Matrices** - A rectangular array of numbers, symbols, or expressions. The individual items in a matrix are called its elements or entries.

4. **Arithmetic Sequences** - is a sequence of numbers such that the difference of any two successive members of the sequence is a constant. For instance, the sequence 3, 5, 7, 9, 11, 13, … is an arithmetic progression with common difference 2.

5. **Geometric Sequences** - a sequence of numbers where each term after the first is found by multiplying the previous one by a fixed non-zero number called the common ratio. For example, the sequence 2, 6, 18, 54, ... is a geometric progression with common ratio 3. Similarly 10, 5, 2.5, 1.25, ... is a geometric sequence with common ratio 1/2. The sum of the terms of a geometric progression is known as a geometric series.

Math terminology definitions: [www.wikipedia.com](http://www.wikipedia.com)
College Algebra

1. What is the next term in the geometric sequence 16, –4, 1, \(-\frac{1}{4}\), … ?
   A. \(-\frac{1}{8}\)
   B. 0
   C. \(\frac{1}{16}\)
   D. \(\frac{1}{8}\)
   E. \(\frac{1}{2}\)

2. A manufacturing company processes raw ore. The number of tons of refined material the company can produce during \(t\) days using Process \(A\) is \(A(t) = t^2 + 2t\) and using Process \(B\) is \(B(t) = 10t\). The company has only 7 days to process ore and must choose 1 of the processes. What is the maximum output of refined material, in tons, for this time period?
   A. 8
   B. 10
   C. 51
   D. 63
   E. 70

3. For the 2 functions, \(f(x)\) and \(g(x)\), tables of values are shown below. What is the value of \(g(f(3))\) ?

<table>
<thead>
<tr>
<th>(x)</th>
<th>(f(x))</th>
<th>(x)</th>
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<td>–5</td>
<td>7</td>
<td>–2</td>
<td>3</td>
</tr>
<tr>
<td>–2</td>
<td>–5</td>
<td>1</td>
<td>–1</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>2</td>
<td>–3</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>–5</td>
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</table>

   A. –5
   B. –3
   C. –1
   D. 2
   E. 7
4. For positive real numbers \(x, y,\) and \(z,\) which of the following expressions is equivalent to \(x^{\frac{1}{2}}y^{\frac{2}{3}}z^{\frac{5}{6}}\) ?

A. \(\sqrt[3]{xy^2z^3}\)
B. \(\sqrt[6]{x^2y^2z^5}\)
C. \(\sqrt[3]{x^2y^2z^3}\)
D. \(\sqrt[6]{x^3y^4z^5}\)
E. \(\sqrt[6]{xy^2z^5}\)

5. If \(A = \begin{bmatrix} 2 & -4 \\ 6 & 0 \end{bmatrix}\) and \(B = \begin{bmatrix} -2 & 4 \\ -6 & 0 \end{bmatrix},\) then \(A - B = ?\)

A. \(\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}\)
B. \(\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}\)
C. \(\begin{bmatrix} 0 & -8 \\ 0 & 0 \end{bmatrix}\)
D. \(\begin{bmatrix} -4 & 0 \\ -12 & 0 \end{bmatrix}\)
E. \(\begin{bmatrix} 4 & -8 \\ 12 & 0 \end{bmatrix}\)

6. Listed below are 5 functions, each denoted \(g(x)\) and each involving a real number constant \(c > 1.\) If \(f(x) = 2^x,\) which of these 5 functions yields the greatest value for \(f(g(x)),\) for all \(x > 1\) ?

A. \(g(x) = cx\)
B. \(g(x) = \frac{c}{x}\)
C. \(g(x) = \frac{x}{c}\)
D. \(g(x) = x - c\)
E. \(g(x) = \log_c x\)

7. If the function \(f\) satisfies the equation \(f(x + y) = f(x) + f(y)\) for every pair of real numbers \(x\) and \(y,\) what are the possible values of \(f(0)\)?

A. Any real number
B. Any positive real number
C. 0 and 1 only
D. 1 only
E. 0 only
8. The imaginary number $i$ is defined such that $i^2 = -1$. What does $i + i^2 + i^3 + \cdots + i^{23}$ equal?

A. $i$
B. $-i$
C. $-1$
D. 0
E. 1

9. In an arithmetic series, the terms of the series are equally spread out. For example, in $1 + 5 + 9 + 13 + 17$, consecutive terms are 4 apart. If the first term in an arithmetic series is 3, the last term is 136, and the sum is 1,390, what are the first 3 terms?

A. 3, 10, 17
B. 3, 23, 43
C. 3, 36$\frac{1}{3}$, 70
D. 3, 69$\frac{1}{2}$, 136
E. 3, 139, 1,251
# Correct Answers for Sample College Algebra Items

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Geometry Placement Test

Primary content areas included in the Geometry Placement Test include:

- Triangles (perimeter, area, Pythagorean theorem, etc.)
- Circles (perimeter, area, arcs, etc.)
- Angles (supplementary, complementary, adjacent, vertical, etc.)
- Rectangles (perimeter, area, etc.)
- Three-dimensional concepts
- Hybrid (composite) shapes

Terms You Should Know

1. **Pythagorean Theorem** - In any right triangle, the area of the square whose side is the hypotenuse (the side opposite the right angle) is equal to the sum of the areas of the squares whose sides are the two legs (the two sides that meet at a right angle).
2. **Perimeter** - A path that surrounds an area. The perimeter of a circular area is called circumference.
3. **Area** - A quantity that expresses the extent of a two-dimensional surface or shape in the plane.
   Area can be understood as the amount of material with a given thickness that would be necessary to fashion a model of the shape, or the amount of paint necessary to cover the surface with a single coat.

Math terminology definitions: [www.wikipedia.com](http://www.wikipedia.com)
Geometry

1. In the figure below, line \( m \) is parallel to line \( n \), and line \( t \) is a transversal crossing both \( m \) and \( n \). Which of the following lists has 3 angles that are all equal in measure?

\[
\begin{array}{c}
\text{A. } \angle a, \angle b, \angle d \\
\text{B. } \angle a, \angle c, \angle d \\
\text{C. } \angle a, \angle c, \angle e \\
\text{D. } \angle b, \angle c, \angle d \\
\text{E. } \angle b, \angle c, \angle e
\end{array}
\]

2. As shown in the figure below, \( \triangle ABC \) is isosceles with the length of \( AB \) equal to the length of \( AC \). The measure of \( \angle A \) is 40° and points \( B, C, \) and \( D \) are collinear. What is the measure of \( \angle ACD \)?

\[
\begin{array}{c}
\text{A. } 70° \\
\text{B. } 80° \\
\text{C. } 110° \\
\text{D. } 140° \\
\text{E. } 160°
\end{array}
\]
3. The diagram below shows a pasture which is fenced in. All but 1 section of fence run straight north-south or east-west. Consecutive fence posts are 10 feet apart except for the 1 diagonal section. Which of the following statements best describes $P$, the perimeter of the pasture, in feet?

A. $P > 210$
B. $P = 210$
C. $P < 210$
D. $P > 230$
E. $P = 240$

4. A person had a rectangular-shaped garden with sides of lengths 16 feet and 9 feet. The garden was changed into a square design with the same area as the original rectangular-shaped garden. How many feet in length are each of the sides of the new square-shaped garden?

A. 7
B. 9
C. 12
D. $5\sqrt{7}$
E. 16

5. In the figure below, $\triangle ABC$ is a right triangle. The length of $\overline{AB}$ is 6 units and the length of $\overline{CB}$ is 3 units. What is the length, in units, of $\overline{AC}$?

A. 5
B. $3\sqrt{3}$
C. $3 + \sqrt{5}$
D. $3\sqrt{5}$
E. $3\sqrt{6}$
6. If a central angle of measure 30° is subtended by a circular arc of length 6 meters, as is illustrated below, how many meters in length is the radius of the circle?

![Circle with central angle 30° and arc length 6 meters]

A. \( \frac{\pi}{36} \)  
B. \( \frac{1}{5} \)  
C. \( \pi \)  
D. \( \frac{36}{\pi} \)  
E. 180

7. A rectangular box with a base 2 inches by 6 inches is 10 inches tall and holds 12 ounces of breakfast cereal. The manufacturer wants to use a new box with a base 3 inches by 5 inches. How many inches tall should the new box be in order to hold exactly the same volume as the original box? (Note: The volume of a rectangular box may be calculated by multiplying the area of the base by the height of the box.)

A. 8  
B. 9  
C. 10  
D. 11  
E. 12

8. In the figure below, the circle centered at \( B \) is internally tangent to the circle centered at \( A \). The smaller circle passes through the center of the larger circle and the length of \( AB \) is 5 units. If the smaller circle is cut out of the larger circle, how much of the area, in square units, of the larger circle will remain?

![Diagram of two circles with \( AB = 5 \) units]

A. \( 10\pi \)  
B. \( 25\pi \)  
C. \( 75\pi \)  
D. \( 100\pi \)  
E. \( 300\pi \)
9. In the figure below, \( \overline{AB} \) and \( \overline{CD} \) are parallel, and lengths are given in units. What is the area, in square units, of trapezoid \( ABCD \)?

A. 36  
B. 52  
C. 64  
D. 65  
E. 104

10. A 6-foot spruce tree is planted 15 feet from a lighted streetlight whose lamp is 18 feet above the ground. How many feet long is the shadow of that tree?

A. 5.0  
B. 7.5  
C. 7.8  
D. 9.6  
E. 10.0

11. In the figure below, the lengths of \( \overline{DE} \), \( \overline{EF} \), and \( \overline{FG} \) are given, in units. What is the area, in square units, of \( \triangle DEG \)?

A. 29  
B. 47.5  
C. 60  
D. \( 6\sqrt{149} \)  
E. 120
## Correct Answers for Sample Geometry Items

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Trigonometry Placement Test

The primary content areas assessed by the Trigonometry Placement Test include:

- Trigonometric functions and identities
- Right-triangle trigonometry
- Trigonometric equations and inequalities
- Graphs of trigonometric functions
- Special angles (multiples of 30 and 45 degrees)

Terms You Should Know

1. **Trigonometric Functions** - Functions of an angle. They are used to relate the angles of a triangle to the lengths of the sides of a triangle. Trigonometric functions are important in the study of triangles and modeling periodic phenomena, among many other applications. The most familiar trigonometric functions are the sine, cosine, and tangent.

2. **Trigonometric Identities** - Are equalities that involve trigonometric functions and are true for every single value of the occurring variables. Geometrically, these are identities involving certain functions of one or more angles. These are distinct from triangle identities, which are identities involving both angles and side lengths of a triangle.

Math terminology definitions: [www.wikipedia.com](http://www.wikipedia.com)
Trigonometry

1. In the right triangle shown below, the length of $\overline{AB}$ is 8 units, $\angle A$ measures $60^\circ$, $\sin 60^\circ \approx 0.866$, $\cos 60^\circ = 0.5$, and $\tan 60^\circ = 1.73$. Approximately how many units long is $\overline{BC}$, to the nearest hundredth of a unit?

A. 4.00  
B. 4.61  
C. 4.80  
D. 6.93  
E. 9.23

2. If $\sin \alpha = \frac{12}{13}$, and $\cos \alpha = \frac{5}{13}$, then $\tan \alpha =$?

A. $\frac{5}{12}$  
B. $\frac{7}{13}$  
C. $\frac{12}{5}$  
D. $\frac{17}{13}$  
E. $\frac{60}{13}$

3. If $0^\circ < x^\circ < 90^\circ$ and $\sin x = \frac{1}{2}$, then $\cos x =$?

A. $\frac{1}{2}$  
B. $\frac{\sqrt{3}}{2}$  
C. 2  
D. $\frac{\sqrt{3}}{3}$  
E. $\frac{2\sqrt{3}}{3}$
4. From a hot air balloon, the angle between a radio antenna straight below and the base of the library downtown is $57^\circ$, as shown below. If the distance between the radio antenna and the library is 1.3 miles, how many miles high is the balloon?

\[
\text{balloon} \quad \begin{array}{c}
\text{antenna} \\
\text{library}
\end{array}
\]

\[1.3 \text{ miles} \quad \begin{array}{c}
\text{57}\ ^\circ
\end{array}
\]

A. \[\frac{1.3}{\sin 57^\circ}\]
B. \[\frac{1.3}{\cos 57^\circ}\]
C. \[\frac{1.3}{\tan 57^\circ}\]
D. $1.3 \sin 57^\circ$
E. $1.3 \tan 57^\circ$

5. What is the smallest positive value for $x$ where $y = \sin 2x$ reaches its maximum?

A. $\frac{\pi}{4}$
B. $\pi$
C. $\frac{3\pi}{2}$
D. $2\pi$
E. $\frac{5\pi}{2}$
6. One of the graphs below is that of \( y = A \sin \theta \) for \( \theta \) between 0 and 6.28 radians, where \( A \) is a constant. Which one?

A. 

B. 

C. 

D. 

E. 

7. In the right triangle below, the length of \( AB \) is 13 units and the length of \( CB \) is 12 units. What is the tangent of \( \angle A \)?

A. \( \frac{12}{5} \)
B. \( \frac{13}{12} \)
C. \( \frac{12}{13} \)
D. \( \frac{5}{12} \)
E. \( \frac{5}{13} \)
Correct Answers for Sample Trigonometry Items

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