**Test-Taking Strategies for Math**

**Tips for Taking Tests throughout the Year**

– Keep up with your homework. Homework is important practice that will help you learn the skills you need for the test. Practice will also help you answer questions more quickly, leaving more time for the difficult questions.

– Review your notes, homework, and tests on a regular basis to make sure that you maintain the skills you learned earlier in the year.

– Use flashcards to learn important formulas and vocabulary words.

If you can, memorize formulas to save time on the test.

– Familiarize yourself with the format and content of the test.

– Make a timeline for reviewing materials in the time leading up to the test. Do not try to “cram” the night before the test.

– Practice without your calculator, because you will not be allowed to use a calculator on the test.

**Before the Test**

– Be sure you are well rested.

– Eat a good breakfast.

– Be on time, and be sure that you have the necessary materials.

– Try not to miss class the day before the test. Your teacher may be reviewing important content.

**During the Test**

– Listen to the instructions of the teacher. It’s easy to miss important points that can affect your score.

– Read the directions carefully. If you do not understand a direction, raise your hand and ask for clarification immediately.

– Use your scratch paper. You are more likely to make a mistake when doing a problem in your head. You can also use your written work to help check your answer. Circle the answer and write the problem number next to your work so you can find it while you are reviewing your test.

– Read the entire question, including all answer choices, and think about your answer before you make any marks on the answer sheet.

– Fill in the circle for each answer carefully and completely. Erase any stray marks on the page. If you change an answer choice, be sure to erase completely and carefully so that you do not tear a hole in the answer sheet.

– Make sure the number on the answer document matches the question number in the test booklet.

– Don’t spend too much time on any one question. If you cannot answer a question right away, fill in your best choice. If you have time at the end of the test, return to any questions you are unsure of.

– If questions contain negative wording such as NOT, read them carefully and be alert for the use of double negatives within a sentence.

– Understand the format of the test so that you can gauge your time according to what section of the test you are taking.

– If you finish early, review the test and make sure the answer sheet is filled out correctly. Remember, your first answer is usually the correct one, so don’t change an answer unless you can convince yourself that your original choice is wrong. Try solving the problem in a different way to see if you get the same answer.

– DON’T STRESS! Just remember what you have learned in class, and you should do well.

**Tips for Answering Multiple-Choice Questions**

– If there is a figure accompanying the question, review the figure carefully. Read the labels and make sure you understand what the figure represents. Remember, a figure may not be drawn to scale.

– If there is not a figure, it may be helpful to draw one on your scratch paper using the information provided.

– Read the multiple-choice question first for its general intent and then reread it carefully, looking for words that give clues or can limit possible answers to the question.

- Remember, common errors are often used to generate incorrect answer choices. Be sure you work carefully.

– Make sure you answer the question being asked. A partial answer to the question may be used as an incorrect answer choice.

– Always read **all** of the possible answer choices—even if the first one seems like the correct answer. There may be a better choice farther down in the list.

– Think of what you already know about the math topic involved and use that information to help eliminate answer choices. You can also use estimation to eliminate answer choices.

– If you cannot work the question, you may be able to substitute the answer choices back into the question to find the correct choice. Start with the middle value. If the result is too large, then substitute a smaller value. If the result is too small, then substitute a larger value.

– Never leave a question blank. There is no penalty for guessing, so always choose an answer.

– When you are finished, reread the question and the selected answer to be sure that you made the best choice and that you marked it correctly on the answer sheet.

**Strategies for Success**

There are various strategies you can employ ahead of time to help you feel more confident about answering questions on math standardized tests. Here are a few suggestions:

**1. VISUALS**

Note the labels on the charts and graphs. For example, a scale on one axis may provide a valuable clue. Read all graphs twice. When reading diagrams, read all labels and tick marks carefully, and read diagrams twice, also. Label the figure with any information stated in the problem that is not in the diagram. Use the properties of the figure, for example, if it is stated that a figure is a square, you can label all the sides with the same length. If a figure is not provided, it may be helpful to draw one. Be sure that you do not assume any information that is not included in the problem. Remember, the figure does not have to look perfect. It is only to help you understand the relationships in the problem.

**2. CONCEPTS**

When answering questions about math concepts, don’t let a hard question stump you. You can always work with what you do know. It’s possible to answer a question when you know only a part of the concept being tested. Another strategy to help you on difficult questions is to draw or sketch out the question’s concept. Often you can understand how to answer a question by listing what you know, sketching the process, and then identifying what you are supposed to solve. If you do not understand a problem on the test, try to relate it to a problem you can solve. For example, you can substitute simpler numbers into a problem and figure out how to solve it. Then try again with the original values in the problem.

**3. MATH SKILLS**

To help you on the math sections of the tests, practice the skills as you are reading and discussing your textbook. For example, you could put the steps to a process in order in your mind. Also, sequencing a process can become a game you play with a friend who also has to take the test. Always ask yourself what the most important points are when studying sections. Some of the more common skills for studying math are:

**• Analyzing Information**—the process of breaking something down into its parts and examining the relationships between them. Analyzing enables you to better understand the whole.

**• Sequencing**—the process of placing steps in order to better understand the problem. When you analyze the sequence, you are determining what happens first, second, and so on.

**• Categorizing**—the process by which you group things together by the characteristics they have in common. Categorizing helps you to make comparisons and see differences among things.

**• Identifying Cause and Effect**—interpreting the relationships between events. A *cause* makes something happen. An *effect* is what happens as a result of the cause.

**• Comparing and Contrasting**—the process of examining situations or ideas, etc., for their similarities and differences.

**• Summarizing**—the process of taking a large amount of information and boiling it down into a short clear statement. To *summarize* a problem, you must analyze the problem to find the most important points and the supporting information.

**• Paraphrasing**—a paraphrase is a restatement of someone’s ideas or words. A paraphrase is usually about as long as the original; the ideas are just expressed in simpler terms. A paraphrase question might be stated like this, “According to the passage, which of these statements is accurate?”

**• Visualizing**—visualizing helps you see processes and procedures in your mind’s eye. Visualizing will help you be successful on a variety of math questions you could encounter on tests.

**4. READING MATH**

First, remember that what you have learned about math can help you in answering comprehension questions on tests. Also, though, remember the following points:

• Read the problem as if you were not taking a test.

• Look at the big picture. Ask yourself questions like: *What is the question being asked? What do the diagrams or graphs tell me?*

• Read the problem quickly first. This technique will help you know what information to look for as you read.

• Reread the problem and underline information related to the questions.

• Go back to the question and try to answer it in your mind before looking at the answers.

• Read all the answer choices and eliminate the ones that are obviously incorrect.

• If you can eliminate certain answers, getting the choice down to two, go ahead and pick one of the two responses. That’s an educated guess, and you are most likely better off making the choice.

**Analyzing Word Problems**

Many students who are comfortable with basic skill problems are still stumped by word problems. These steps will help you work through word problems on standardized tests.

**Step 1 Understand the problem**

Read the problem carefully and make sure you understand what is being asked. You may wish to rewrite the question in your own words. List the given information or circle it in your test booklet, if you are allowed to write in it. Cross out any unnecessary information.

**Step 2 Make a plan**

Think about similar problems you have seen in the past, and how you solved them.

Determine a strategy or strategies that you will use to solve the problem, such as drawing a diagram, working backward, finding a pattern, or other problem-solving strategies.

**Step 3 Solve the problem**

Solve the problem according to your plan. If the strategy you chose is not working, go back and revise. Write out all the steps on your scratch paper to avoid making careless mistakes.

**Step 4 Look Back**

Make sure you answered the question that was asked. Check your answer in the words of the problem to make sure your answer is reasonable. Make sure your answer is in the correct place on the answer document.

**Learning Math Vocabulary**

Learning vocabulary is important in order to be successful on standardized tests. During the test, you will not be able to ask the meaning of a word, and you may not be able to answer a question that contains a word you do not know. Spend time learning vocabulary throughout the year so that you are prepared for your test when the time comes.

Identify important terms:

As you learn new concepts, keep a list of unfamiliar terms. Also, review the standards for your grade and write down any words you do not know.

Learn the meaning of each term:

Look up the meaning of each new word in your glossary. It may help to use the Vocabulary Questioning Strategies shown on the next page. Another way to learn vocabulary is by using graphic organizers.

Memory aids:

Your lists of words may be used as memory aids, or it may be helpful to create flashcards with the term on the front and the definition and/or examples on the back. Review the flashcards frequently. As you learn the words, you may remove the flashcards from your stack, but keep them for occasional review before your exam.

Use context clues:

If you do encounter an unfamiliar word on your test, don’t panic. Try to relate it to a familiar word or use context clues to determine the meaning of the word in the problem.