

Successful Test Taking[®]

Mathematics 4

Dear Educator:

This sample represents only a portion of the **LEADERSHIP RESOURCES[®]** Successful Test Taking[®] Mathematics 4 MSP book (2010 edition).

The actual book is 48 pages with 90 math items: 47 are multiple-choice, 15 are completion items, 3 are enhanced multiple-choice, and 25 are short-answer. The actual book is printed on newsprint, is consumable, and is sold in a set of 30 books for \$60.00. The teacher's guide identifies the specific Performance Expectation each item assesses.

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Successful Test Taking[®]

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Successful Test Taking[®]

Preface

This test taking book has been developed to help you take a mathematics test, as well as review strategies you already use in math.

A good test:

- A. confirms what you already know,
- B. helps you to see where you can use what you know,
- C. shows you new ideas while taking the test.

Please note that this book was made to help you learn how to prepare for and take tests. It is **not**, however, a complete model of your state assessment. This book was developed to provide you with typical items that might be tested.

Test taking is complicated. By studying tests and how they are written, you can become a better test taker. The reading, writing, and mathematics strategies you use in the classroom and in daily life can be used here as well.

As you work with this book, try to do your best work. Doing your best work is a mirror of your ability and effort.

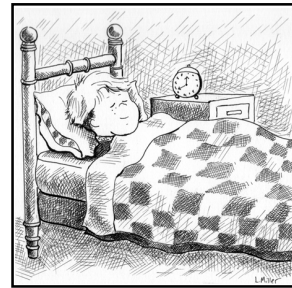
Remember To Use Your Common Sense

Test Taking Tips

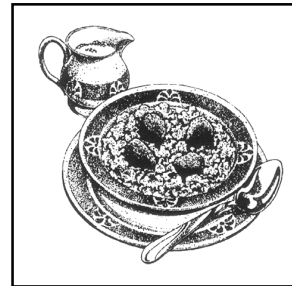
Here are some helpful hints.

I. Before coming to school on the test days:

- A. **Get some rest.** It's not very smart to try to do your best work when you are tired.



- B. **Eat something** in advance, such as cereal, toast, or fruit, and have some milk or fruit juice. You already know that a good breakfast will give you the energy you need to do well in school.



- C. **Come prepared.** You may be provided with a pencil that has an eraser, but bring one anyway. Also, bring a book or magazine to entertain yourself if you finish the test early.

- D. **Arrive on time.** Tests take energy. Don't spend all your energy rushing to get to school on time. Allow yourself plenty of time to get to school on the test days.

II. When you get to school on the test days:

- A. Find a comfortable place to work. This may mean not sitting next to your friends. Remember, your goal is to do your best on the test. Sit where you can concentrate and do well.
- B. Follow along when your teacher gives the test directions. Ask your teacher to explain the directions if you do not understand them.
- C. Some tests are confusing. You may know the answer, but you must correctly fill in the bubble or write your answer to get credit for your answer.
- D. Unless your teacher tells you otherwise, **mark in the test book**. Most test books will not be used again, so mark away! Do any work you need to right on the test book pages.
- E. Don't waste all of your time on one item. It is OK to skip an item and return to it later. Make it easy to find the item you skipped by circling the number of the item in the test book.
- F. If you come across an item that just seems impossible, skip it and move on. But don't give up on the whole test altogether. Some test writers put in very hard items at first. Don't let them discourage you when they do this. Keep going!
- G. Do your own work. Copying another student's answers is not right.
- H. For multiple-choice and enhanced multiple-choice items, mark the BEST answer. If you are not sure of an answer, guess wisely. But don't mark just any answer. You probably already know that at least one of the answer choices is incorrect. Mark out answer choices that are clearly incorrect even if you can't completely figure out the correct answer. This will make guessing wisely easier.
- I. For completion items, think and calculate carefully, and then write your answer on the line provided.
- J. For enhanced multiple-choice and short-answer items, clearly explain your thinking or show all your work.
- K. Review your multiple-choice, enhanced multiple-choice, and completion answers when you are finished to be sure you have the BEST answer.
- L. Review your work and answers for all enhanced multiple-choice and short-answer items to make sure they are clear and complete.
- M. Most tests are too long, and you will get tired. Keep at it. It may help to stretch your back and arms or look at the ceiling or out a window from time to time.
- N. Remain calm. Tests are important, but they aren't the end of the world. Do the best you can.

Successful Test Taking Strategies for Answering Multiple-Choice Items, Enhanced Multiple-Choice Items, and Completion Items

1. Read each item carefully.
Try to get a “feel” for what the answer might be while you are reading the item.
2. Ask and answer, "What do I know?" "What am I being asked to do?"
3. For each type of item, think and calculate carefully.
4. For multiple-choice items, there will be 3 answer choices.
Look at each answer choice.
Mark out answer choices that are clearly incorrect.
5. For multiple-choice items, if you really don't know the answer, try using each answer choice in the item.
“Plugging-in” each answer choice may help you find the BEST answer. Then, mark the BEST answer right in this book by filling in the bubble to the left of the answer you chose.
A correct answer for multiple-choice items is worth one point.
6. Enhanced multiple-choice items ask you to mark the BEST answer in the same way. Then you must tell or show why you chose the answer you did. Enhanced multiple-choice items are worth two points.
7. For completion items, you must write your answer neatly and clearly on the line provided.
You can do your work next to the item but not on the answer line.
A correct answer for completion items is worth one point.

Successful Test Taking Strategies for Answering Enhanced Multiple-Choice and Short-Answer Items

Enhanced multiple-choice items require you to choose the BEST answer from 3 answer choices and then tell or show why you chose that answer.

Short-answer items require you to think about an answer to an item, figure out a way to solve the item, and then either write an answer or show how you got your answer. Some short-answer items may have you perform a task such as making a drawing or a graph.

Short-answer items require you to tell why you chose the answer you did or show how you arrived at your answer by using words, numbers, or pictures. You will use about 5 minutes to answer each enhanced multiple-choice and short-answer item. A complete answer is worth 2 points.

1. **THINK:** Read the item and any directions carefully.
Ask yourself, "What do I know?" "What is the item asking me to do?"
2. While you are reading the item, look for and underline key words or ideas.
3. **SOLVE:** Use the strategies you know best to help you solve the item:
 - Brainstorm for ideas and strategies by recalling what you already know.
 - Read all the information given in the item. Decide what is important and what is not.
 - Be careful with your calculations.
4. **SHOW:** Remember, someone will be reading your answers and checking your work for enhanced multiple-choice and short-answer items. Clearly and completely explain why or show how you came up with the answer you did. Explain or show all the steps you took. Do not erase any of your work. If you make a drawing or a graph, be sure they are complete.
5. Make sure your answer is clear and complete so that the person who checks your answer understands your thinking.
6. Check your work to make sure you have answered each part of the item and have given all the information asked for by the item.

11 Strategies for Successful Test Taking in Mathematics

Good math test takers:

1. Read the item.
2. Ask, “What does the item want me to do?”
 - add, subtract, multiply, divide, estimate, measure?”
3. Ask and answer, - “What do I know?”
 - “What am I being asked to do?”
 - “What procedures do I use?”
4. Solve multiple-choice and enhanced multiple-choice items by marking out all incorrect answer choices and then selecting the BEST answer.
5. Solve completion items by thinking and calculating carefully.
6. Solve enhanced multiple-choice and short-answer items by **Thinking, Solving, and Showing.**
7. Review multiple-choice, enhanced multiple-choice, and completion answers to be sure they have the BEST answer.
Review their work and answers to enhanced multiple-choice and short-answer items to make sure they are clear and complete.
8. If stuck, circle the item number or the entire item to return later for additional work on the item.
9. Take quick stretch breaks when needed, then ask, “What am I getting ready to do next?”
10. Don’t give up. Sometimes the easiest items are at the end of the test.
11. Smile and pat themselves on the back for finding the best answers.

Mathematics - Practice Test Directions

There are 4 different types of mathematics items in the practice tests:

1. **Multiple-choice** items ask you to choose the BEST answer from among three answer choices.
2. **Completion** items ask you to write your answer on the line provided.
3. For **enhanced multiple-choice** items, you will choose the correct answer from three answer choices and then explain why you chose the answer you did.
4. Some **short-answer** items ask you to figure out the answer and show your work using words, numbers, or pictures. Other **short-answer** items may have you perform a task such as making a drawing or a graph.

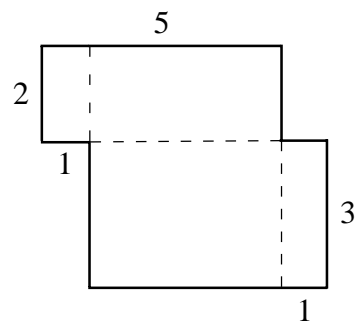
Here are some important things to remember:

1. Write or mark your answers right in this book.
2. For multiple-choice and enhanced multiple-choice items, choose the BEST answer by filling in the circle to the left of the answer you chose.
3. For completion items, think and calculate carefully, and then write your answer on the line provided.
4. For enhanced multiple-choice and short-answer items, think carefully before you answer. Remember, someone will be reading your answers and checking your work. Clearly explain why or show how you came up with the answer you did. **SHOW ALL YOUR WORK.** Do not erase your work.
5. If you do not know the answer to an item, go on to the next item. You can return to that item later.
6. **CONTINUE WORKING UNTIL YOU REACH A STOP SIGN AT THE BOTTOM OF A PAGE. THEN STOP.**
7. If you finish a test early, you may check your work only in that test. Do not turn to another practice test.

- 4 Last Saturday, the six members of the Ross family went to an amusement park. The cost to enter the park was \$56 for each family member. The family also spent \$17 on food for each family member. How much money did the Ross family spend at the amusement park last Saturday? Choose the best answer, then tell or show why you chose that answer.

- A. \$338.00
 B. \$438.00
 C. \$538.00

- 6 What is the area of the figure, in square feet?



What is the area of the figure, in square feet?

- 4 Determine the answer: $600,000 \times 100$
Write your answer on the line in the box.

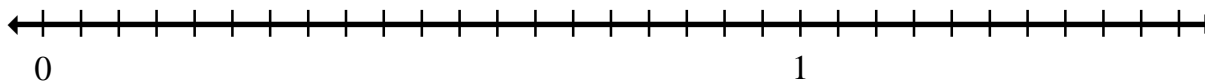
- 19 Write four fractions equivalent to each given fraction.

$$\frac{7}{8}$$
$$\frac{3}{5}$$
$$\frac{4}{6}$$

- 22 Mrs. Smith needs to buy enough orange juice to fill-up 48 eight-ounce cups. Each cup will be filled-up once. Orange juice is sold by the gallon. How many **gallons** of orange juice must Mrs. Smith buy?

- A. 2 gallons
- B. 3 gallons
- C. 4 gallons

- 30 Correctly show the numbers on the number line: $\frac{3}{4}$ 0.45 $1\frac{1}{5}$ $\frac{6}{4}$ 0.05 $1\frac{2}{8}$



27 Round each fraction and decimal to the nearest whole number.

$$\frac{5}{12}$$

$$\frac{5}{9}$$

0.09

0.54

8 Both the fraction and the figure represent eight-tenths.

$$\frac{8}{10}$$



Write a decimal that is the same as the fraction and the figure.

Write a decimal that is the same as the fraction and the figure.

15 The length of a rectangular classroom is 60 feet.
The perimeter of the classroom is 220 feet. What is the area of the classroom?

- A. 50 square feet
- B. 300 square feet
- C. 3,000 square feet

9 Jodie and Jackie plan to make $2\frac{2}{6}$ quarts of lemonade.

They need a pitcher that is able to hold that much lemonade.

Jackie finds a pitcher in her mother's kitchen that is labeled, "capacity 2.26 quarts".

Will the pitcher hold the amount of lemonade Jodie and Jackie plan to make?

Show your work using words, numbers, or pictures.

Will the pitcher hold the amount of lemonade Jodie and Jackie plan to make? _____

Use the information to answer items 11, 12, and 13.

Some children are going to the zoo. Their ages are 9, 10, 5, 12, 8, 11, and 8.

11 What is the median age of the children?

What is the median age of the children? _____

16 Which symbol belongs in the square to make a **true** sentence?

$$0.54 \square \frac{4}{9}$$

- A. >
- B. =
- C. <

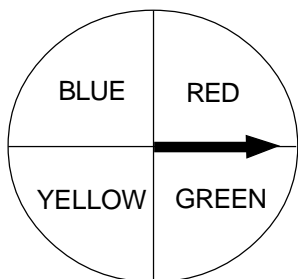
17 The basketball court at King Elementary School measures 80 feet by 50 feet. The school plans to paint a 10 foot wide border around the perimeter of the basketball court (the dark area in the diagram). The cost to paint the border is \$5.00 for each square foot.



What is the **total** cost to paint the border?
Show the steps needed to solve the problem.

What is the total cost to paint the border? _____

- 23 The spinner has four congruent sections.
Jen spun the arrow 50 times and recorded these results.



Number of Times the Arrow
Landed on a Color

Blue	8
Red	17
Green	14
Yellow	11

Make a bar graph of the results of Jen's spins.

Be sure to include:

- labels for each axis
- a label for each color
- a scale that fits the data
- bars to show the number for each color

Make a line plot of the results of Jen's spins.

Be sure to include:

- a scale that fits the data
- a label for the axis
- a + for each data point

- 25 Amy bought 3.4 meters of yarn. She cut the yarn into pieces that were each 17 centimeters long. How many 17-centimeter pieces of yarn did Amy have?

- A. 2 pieces
- B. 13 pieces
- C. 20 pieces

Answer Key & Teacher's Guide

Successful Test Taking[®] **MATHEMATICS 4**

2010 Edition

LEADERSHIP RESOURCES[®]


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Successful Test Taking[®]

This *Successful Test Taking[®]* Mathematics 4 book is specifically designed to assist teachers and students as they incorporate the information and skills contained in the Performance Expectations into their learning environment. Each item has been aligned with the Performance Expectations. There is at least one item in the book for each assessable Performance Expectation. As such, the book is an **essential teaching resource** for educators interested in preparing their students for the state assessment. Students will see the book as a helpful **learning tool** to master important mathematics skills.

Using Successful Test Taking[®]

1. After each student receives a *Successful Test Taking[®]* Mathematics 4 book, let them know they can write and mark their answers in the book.
2. Use pages 3-5 to discuss preparation and aids to test taking.
3. On pages 6, 7, and 8, review with your students the strategies for answering the different types of mathematics items on the assessment.
4. This book contains three practice tests. Each test is equally challenging, so teachers may administer any test first.
5. Because this book is a learning/practice tool, you should tell your students that the format of the *Successful Test Taking[®]* Mathematics 4 book is somewhat different from the assessment. For example, each test has more short-answer items (7 to 9) than the assessment to give students a more effective preparation for the assessment.
6. Have students turn to the directions on page 9 and review the directions with them.
7. Next, have students begin any one of the practice tests. Students will continue working until they reach the end of a practice test.
8. The other practice tests are to be administered in the same manner as the first.
9. **Remind students to continue working on the math problems until they reach a stop sign  at the bottom of a page, at which point they stop.**
10. There are:
 - 30 items and 38 points in Test 1
 - 30 items and 40 points in Test 2
 - 30 items and 40 points in Test 3

Successful Test Taking[®]
Mathematics 4

Answer Key
with Suggested Explanations for Short-Answer Items

47 Multiple-Choice items worth 1 point each
15 Completion items worth 1 point each
3 Enhanced Multiple-Choice items worth 2 points each
25 Short-Answer items worth 2 points each

The State-created Performance Expectation for each item is located before each answer.
The Performance Expectations are listed on pages 9 and 10.

Practice Test 1

1. 4.2.B; 4.2.A **B.** 70.17
2. 4.1.G (**completion**) Student must mentally multiply: for example, $90 \times 4 = 360$ and $3 \times 4 = 12 = 372$ or $100 \times 4 = 400$ less $28 (7 \times 4) = 372$
3. 4.2.B **C.** $7.05 > 6.50$
4. 4.1.D (**completion**) 60,000,000
5. 4.1.I (**enhanced multiple-choice**) **B.** \$438.00
(entrance cost - \$336; food cost - \$102)
6. 4.3.D (**completion**) 30 square feet ($7 \times 5 = 35 - 2 - 3 = 30$)
7. 4.4.C **A.** 1 hour and 25 minutes
8. 4.4.F **A.** equally likely
9. 4.2.A **C.** 0.55
10. 4.3.C **A.** $2(l + w)$
11. 4.4.B **C.** 40 ounces
12. 4.3.F **B.** Hank's pizza
Hank's pizza is the better deal. Increasing the length of Hank's pizza by 1 inch yields an area of $13 \text{ inches} \times 8 \text{ inches} = 104 \text{ ins.}$
Ted's pizza increased by 1 inch would be $17 \text{ inches} \times 6 \text{ inches} = 102 \text{ ins.}$
13. 4.2.B **A.** 1.01 0.98 0.79 0.78