

ASSESSMENT PREP for COMMON CORE MATHEMATICS

Tips and Practice for the Math Standards



- Practice Assessments
- Multiple-Choice Questions
- Open-Ended Questions
- Test-Taking Tips
- Diagnostic Information



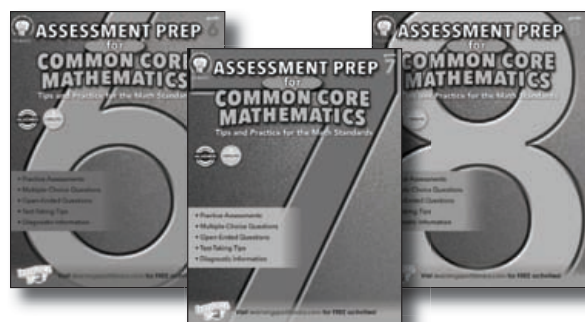
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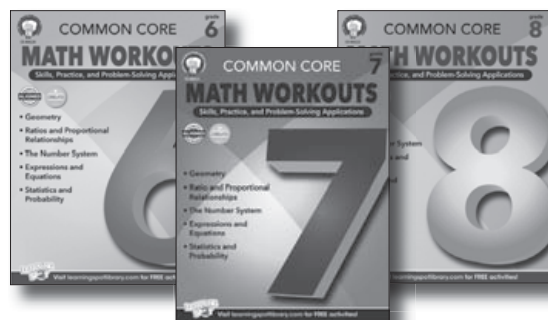
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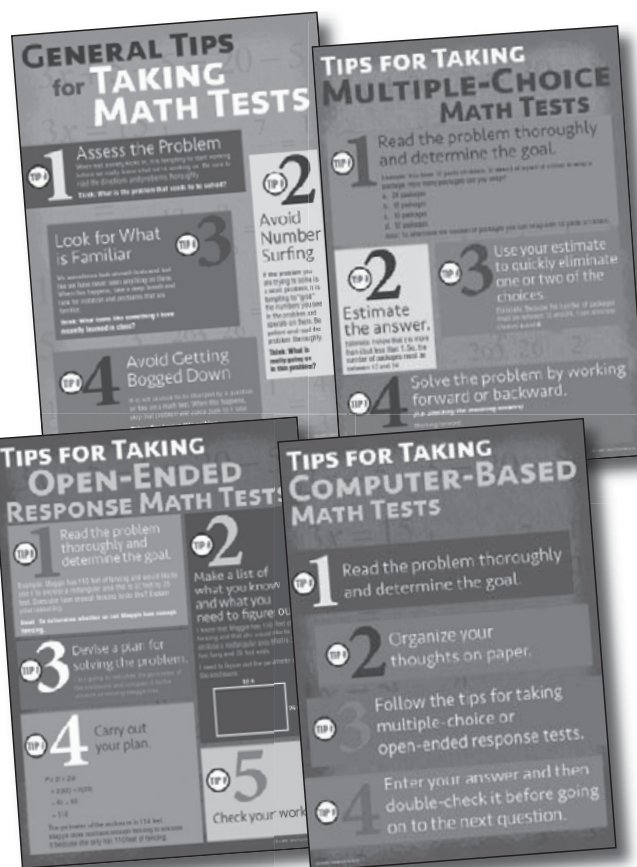
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Common Core Math Literacy

Assessment Prep for Common Core Mathematics

Grade
6

Tips and Practice for the Math Standards

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Introduction to the Teacher

The time has come to raise the rigor in our children's mathematical education. The Common Core State Standards were developed to help guide educators and parents on how to do this by outlining what students are expected to learn at each grade level. The bar has been set high, but our students are up to the challenge.

More than 40 states have adopted the Common Core State Standards, and the school districts in those states are aligning their curriculums and state assessments to those standards. This workbook is designed to help you prepare your students for assessments based on the Common Core State Standards. It contains both multiple-choice and open-ended assessment questions that are similar to the types of questions students will encounter on their state assessments. We have also included test-taking tips and strategies that will help students perform well on these types of assessments.

Additionally, this book contains diagnostic information for the multiple-choice questions. This information will help you understand why your students selected particular incorrect answers. We believe that you will be able to use this information to identify the gaps in student knowledge, which will inform your future instruction.

We hope that this book will be a valuable resource for you in preparing your students for assessments that are aligned with the Common Core State Standards!

—Karise Mace and Christine Henderson



Test-Taking Strategies for Math Tests

Test anxiety affects many students. Here are some strategies you can teach your students to help alleviate the anxiety and help them become more relaxed test takers. We have also included a sample problem in which we highlight how these strategies might be used.

Multiple-Choice Tests

Tip #1: Read the problem thoroughly and determine the goal.

Anxious test takers have a tendency to read through problems quickly and then immediately scan the answer choices for what might be the correct answer. Encourage your students to be patient as they read through each problem so that they can determine what the problem is asking them to do. They may even wish to circle information that they think is important and underline the question.

Tip #2: Estimate the answer.

Students often “number surf.” That is, they “grab” the numbers they see in the problem and start operating on them in an attempt to get one of the answer choices. Encourage your students to use estimation to determine the reasonableness of an answer.

Tip #3: Use your estimate to quickly eliminate one or two of the choices.

Once students have calculated an estimate, they can almost always use it to eliminate one or two unreasonable choices. Encourage them to cross these out with their pencils.

Tip #4: Solve the problem by working forward or backward.

Some problems can be solved just as efficiently by working forward or backward. If students are unsure about how to use the information in the problem to get one of the answers, encourage them to start with one of the answers and work backward to see if they get the information in the problem.

Example: You have 12 yards of ribbon. It takes $\frac{2}{3}$ of a yard of ribbon to wrap a package.

How many packages can you wrap?

- A. 24 packages
- B. 18 packages
- C. 16 packages
- D. 12 packages

Estimate: I know that $\frac{2}{3}$ is more than $\frac{1}{2}$ but less than 1. So, the number of packages must be between 12 and 24.

Eliminate: Because the number of packages must be between 12 and 24, I can eliminate choices A and D.

Working forward:

$$12 \text{ yards} \div \frac{2}{3} \text{ yard/package} = \frac{12}{1} \times \frac{3}{2} = 18 \text{ packages}$$

The correct answer is choice B.

Test-Taking Strategies for Math Tests

Open-Ended Response Tests

The tips for solving open-ended response problems are similar to those for solving multiple-choice problems. However, because open-ended response questions are also used to assess the problem-solving process, students must learn how to communicate their process. These tips will help them learn to do that.

Tip #1: Read the problem thoroughly and determine the goal.

Open-ended response problems are often multi-step. It is important to encourage your students to read these problems patiently and thoroughly so that they do not forget to complete the problem. It may be helpful for them to circle important information and underline the question.

Example: Maggie has 110 feet of fencing and would like to use it to enclose a rectangular area that is 32 feet by 25 feet. Does she have enough fencing to do this? Explain your reasoning.

Tip #2: Make a list of what you know and what you need to figure out.

Making lists can help students keep their information organized. Encourage them to make two lists—one of the things they know and another of the things they need to figure out.

Things I know:

1. Maggie has 110 feet of fencing.
2. The area to be enclosed is a rectangle.
3. The length of the rectangle is 32 feet, and the width is 25 feet.

Things I need to figure out:

1. What is the perimeter of the area to be enclosed?
2. Whether or not Maggie has enough fencing to enclose the area

Tip #3: Devise a plan for solving the problem.

While students do not always need to write out their problem-solving plan, it is important for them to form one. Many open-ended response problems ask students to explain their problem-solving process. Encourage students to write down their plan as part of this explanation.

Plan: I am going to calculate the perimeter of the rectangular area and compare it to the amount of fencing Maggie has.

Tip #4: Carry out your plan.

As students begin to carry out their plan, encourage them to show their work!

Tip #5: Check your work.

Students like to skip this step, but it is one of the most important ones in the problem-solving process. Encourage your students to take time to check their work and to make sure that they actually solved the problem they were asked to solve.

Carry out the plan:

$$\begin{aligned} P &= 2l + 2w \\ &= 2(32) + 2(25) \\ &= 114 \end{aligned}$$

The perimeter of the rectangular area is 114 feet. Maggie does *not* have enough fencing to enclose it because she only has 110 feet of fencing.