

# Standards for Mathematical Practice

## Parents' Guide

As your son or daughter works through homework exercises, you can help him or her develop skills with these Math Practice Standards by asking some of these questions:

### 1. Make sense of problems and persevere in solving them.

- What are you solving for in the problem?
- Can you think of a problem that you have solved before that is like this one?
- How will you go about solving it? What's your plan?
- Are you making progress toward solving it? Should you try a different plan?
- How can you check your answer? Can you check using a different method?

### 2. Reason abstractly and quantitatively.

- Can you write or recall an expression or equation to match the problem situation?
- What do the numbers or variables in the equation refer to?
- What's the connection among the numbers and the variables in the equation?

### 3. Construct viable arguments and critique the reasoning of others.

- Tell me what your answer means.
- How do you know that your answer is correct?
- If I told you I think the answer should be (*offer a wrong answer*), how would you explain to me why I'm wrong?

### 4. Model with mathematics.

- Do you know a formula or relationship that fits this problem situation?
- What's the connection among the numbers in the problem?
- Is your answer reasonable? How do you know?
- What does the number(s) in your solution refer to?

### 5. Use appropriate tools strategically.

- What tools could you use to solve this problem? How can each one help you?
- Which tool is more useful for this problem? Explain your choice.
- Why is this tool (*the one selected*) better to use than (*another tool mentioned*)?
- Before you solve the problem, can you estimate the answer?

### 6. Attend to precision.

- What do the symbols that you used mean?
- What units of measure are you using? (*for measurement problems*)
- Explain to me (*a term from the lesson*).

### 7. Look for and make use of structure.

- What do you notice about the answers to the exercises you've just completed?
- What do different parts of the expression or equation you are using tell you about possible correct answers?

### 8. Look for and express regularity in repeated reasoning.

- What shortcut can you think of that will always work for these kinds of problems?
- What pattern(s) do you see? Can you make a rule or generalization?