

# Winning with Math

Name \_\_\_\_\_ Date \_\_\_\_\_

## PURPOSE

Learn how to be successful at math.

HOW TO DO THIS COURSE: Do the steps in order. Write your initials and the date on the sign-off line when you finish a step. Two lines means you get the step checked by another student or, if stated, by your teacher. Have them initial the second line. All written work is turned in to your teacher.

ESTIMATED TIME: 5 hours.

BOOK:

*Winning with Math*, Heron Books

## A. SOME THINGS TO KNOW ABOUT MATH

1. READ: Chapter 1 Some Things to Know about Math to the heading "Practice." \_\_\_\_\_
2. ACTIVITY: In writing, explain in your own words what math is. Give some examples of what you can use it for, both now and in your future. \_\_\_\_\_
3. READ: Chapter 1, section "Practice." \_\_\_\_\_
4. ACTIVITY: Discuss with another student:  
 why practice is important in learning math.  
 something in math you have practiced until it was easy.  
How much practice did it take? \_\_\_\_\_
5. READ: Chapter 1, section "Math Problems." \_\_\_\_\_

6. ACTIVITY:

- Make up two math problems that are a group of numbers and symbols you find an answer for. Then make up two word problems.
- Give your problems to another student to solve. If any are missed, show the student how to get the right answers.

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## B. ABOUT DISCIPLINE

1. READ: Chapter 2 About Discipline, to the heading “Using Self-Control.”

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2. ACTIVITY:

- Come up with several examples of people who you think are good at something. They could be friends, family members, sports stars or anyone else.
- Tell another student about each person, and how the person does things in a way that might not be easy, but works, and does it that way over and over.

\_\_\_\_\_

3. READ: Chapter 2, section “Using Self-Control.”

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4. ACTIVITY: With objects or by acting it out, show another person what self-control is.

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5. ACTIVITY: In writing, describe a time when you used self-control.

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6. READ: Chapter 2, section “Doing Exact Steps.”

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7. ACTIVITY:

- Think of a subject other than math you know about where there are exact steps for doing something.
- Explain to another student what the steps are.

\_\_\_\_\_

8. READ: Chapter 2, section “Doing Things the Way that Works Best.” \_\_\_\_\_
9. ACTIVITY: Think of something you do well. Tell another student:
- what it is.
  - certain ways of doing it, or part of it, that work best.
  - what happens when you do it that way and what happens when you don't.
  - ways you use self-control when doing this thing. \_\_\_\_\_
10. READ: Chapter 2, section “Practicing” to the end of the chapter. \_\_\_\_\_

### C. GETTING RIGHT ANSWERS IN MATH

1. READ: Chapter 3 Getting Right Answers in Math, to the heading “Doing Math Work in an Orderly Way.” \_\_\_\_\_
2. ACTIVITY: Using the information you just read:
- create an example of math work that is not written clearly and neatly.
  - create an example of math work that is written clearly and neatly.
- Show these to your teacher. **Teacher pass.** \_\_\_\_\_
3. READ: Chapter 3, section “Doing Math Work in an Orderly Way.” \_\_\_\_\_

4. ACTIVITY: Using the information you just read:
- create a few examples of math work that is not orderly.
  - create an example of math work that is written in an orderly way.
  - Show this to your teacher.

**Teacher pass.**

\_\_\_\_\_

5. READ: Chapter 3, sections “Math Work Guidelines” and “Discipline Again.”

\_\_\_\_\_

6. ACTIVITY: To help remember the math work guidelines, learn them (just the number and the words in blue print for each) until you can say them from memory. You don’t have to know them perfectly, word-for-word, but should be close.

\_\_\_\_\_

7. ACTIVITY: Do Activity—Using Math Work Guidelines. Keep your work to use again in a later step.

\_\_\_\_\_

8. ACTIVITY: Do these steps to practice the math work guidelines on more complicated problems.

- Choose two word problems from a math book at your level.
- Do them in your math notebook using the math work guidelines.
- When you have finished the problems, look over your work to see how well you followed the guidelines.
- Keep your work to use again in a later step.

\_\_\_\_\_

## D. CHECKING YOUR MATH WORK

1. READ: Chapter 4 Checking Your Math Work. \_\_\_\_\_

2. ACTIVITY: To help remember the four steps of checking math work, learn them (just the number and the words in blue print for each) until you can say them from memory. You don't have to know them perfectly, word-for-word, but you should be close. \_\_\_\_\_

3. ACTIVITY:

Using your work from Activity—Using Math Work Guidelines, figure out for each problem how to use the steps for checking your work and do it.

Have your teacher see how you checked at least four of the eight problems.

**Teacher pass.** \_\_\_\_\_

4. ACTIVITY:

Using the problems you did in step C.8, figure out how to use the steps for checking your work on each one and do it.

Then show your teacher what you did.

**Teacher pass.** \_\_\_\_\_

## E. MATH, DISCIPLINE AND LIFE

1. READ: Chapter 5 Math, Discipline and Life. \_\_\_\_\_

2. ACTIVITY: With your teacher, discuss this idea: “Some people think they have trouble with math when it is really just that they don't use enough discipline.” In your discussion include some examples of this that you have seen. \_\_\_\_\_

3. ACTIVITY: Describe in writing some part or parts of your math that you think need more discipline from you or where you would like to have more discipline. What do you think might be the result of using more discipline? \_\_\_\_\_

## F. USING WHAT YOU'VE LEARNED

1. ACTIVITY:

Do Final Activity A.

Now look over your work and decide for yourself how well you have used the math work guidelines and steps for checking your math. If you see anything that needs to be fixed, underline it and fix it.

When you are satisfied with all your work, show it to your teacher. Find out if there are any guidelines your teacher wants you to improve on when you do the next step.

**Teacher pass.** \_\_\_\_\_

2. ACTIVITY:

Do Final Activity B.

Show your work to your teacher for a final pass.

**Teacher pass.** \_\_\_\_\_

I have completed the steps of this course. I understand what I studied and can use it.

Student \_\_\_\_\_ Date \_\_\_\_\_

The student has completed the steps of this course and knows and can apply what was studied.

Teacher \_\_\_\_\_ Date \_\_\_\_\_

The student has passed the exam for this course.

Examiner \_\_\_\_\_ Date \_\_\_\_\_

## FOR FACULTY

### **ADDITIONAL MATERIALS NEEDED**

Math book at student's level, student's math notebook.

### **ADDITIONAL RESOURCES**

Answers to Winning with Math Activities

Exam and answers

Materials list