## DYNACOMP

## GEOMETRY REVIEW

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## OVERVIEW

GEOMETRY REVIEW is intended for use by high school geometry students throughout a traditional course. Using over 100 questions, the program tests ability to define, explain, compute, and identify on the basis of familiarity with definitions, theorems, and postulates. Each of its seven chapters uses a different type of questioning technique and/or graphic display. The questions within each chapter avoid overlap with any other chapter. In this way, the program is usable in the beginning of the course after the first few lessons of any standard textbook have been covered.

Chapters involving area and volume formulas have been consciously skipped since there are already numerous programs on the market dealing with these topics.

The program uses sound (which may be eliminated by turning off the TV volume) to indicate the presence of a question (two tones), a correct response (a high tone), or a wrong answer (a low tone).

Paper and pencil and/or a calculator may prove useful for some of the computational work found in some sections. Those chapters are noted in the section USING GEOMETRY REVIEW.

## REQUIRED ACCESSORIES

## 48K RAM

ATARI 810 Disk Drive
ATARI BASIC Language Cartridge

## GETTING STARTED

LOADING GEOMETRY REVIEW INTO COMPUTER MEMORY:

## ATARI

1. Insert the ATARI BASIC Language Cartridge in the (left cartridge) slot of your computer.
2. Turn on your disk drive.
3. When the busy light goes out, open the disk drive door and insert the GEOMETRY REVIEW diskette with the label in the lower right-hand corner nearest you. Close the door.
4. Turn on your computer and TV set.
5. You may remove the diskette at this point if it is to be used by others in a school computer lab.

APPLE

1. The APPLE version is autoboot. Put GEOMETRY REVIEW in your disk drive and turn on the computer.

## FIRST SCREEN DISPLAY

If the program has been loaded correctly, you will see:
GEOMETRY
REVIEW
COPYRIGHT 1983
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Followed after a few seconds with your menu selections:
DEFINITIONS, THEOREMS, AND POSTULATES FOR USE IN EUCLIDEAN GEOMETRY

CHOOSE THE TOPIC:

1. POINTS, LINES, AND PLANES
2. ANGLES, PERPENDICULARS, AND PARALLELS
3. CONGRUENCE
4) QUADRILATERALS
5) SIMILARITY
6) RIGHT TRIANGLES
7) CIRCLES
8) END THE PROGRAM

TYPE A NUMBER FROM ABOVE
?
Type one of the numbers. If you type anything else, the prompt will be repeated. If you type an appropriate number and then slip onto another key by mistake, the first number will still be read correctly.

## USING GEOMETRY REVIEW

## MAKING YOUR CHOICE

You may choose to begin with any one of the numbered sections. When that section is completed, you will be allowed to choose another section if you wish. The chapters are arranged in an order that is common to many geometry texts. All necessary directions are provided on the screen.

## THE CONTENTS OF EACH CHAPTER

The following descriptions of each chapter are useful to teachers in assigning particular topics and to the user to know what to expect and what additional supplies, if any, might be needed.

NOTE: "Help is available" means that by typing ?, the correct answer will be supplied. You have an unlimited number of tries on your own, and no help is available when answer choices are supplied.

1. POINTS, LINES, AND PLANES

This is a two-part chapter. The first part contains seven statments with a missing word to be supplied. They are based upon early theorems and postulates. Help is available.

The second part is a formal, seven line proof with statements supplied, and you are asked for the reason that supports each. The program is designed to look for a key part of your reason and anticipates vocabulary differences among textbooks. When an acceptable response is made, the pre-programmed response will pop into the correct place in the proof. This display may or may not be identical to what you have typed, but it is equivalent in meaning. Help is available.
2. ANGLES, PERPENDICULARS, AND PARALLELS

This is a two-part chapter. The first part displays a diagram, a list of words, and a question with a blank to be filled in using a word from the supplied list. There are 12 questions and no help is available.

The second part displays a new diagram, gives information about the diagram, asks for an angle measure, and asks for the reason why the measure is what it is. There are 8 two-part questions, and help is available on either or both parts.
3. CONGRUENCE

Given specific information about two displayed triangles, you must determine which congruence theorem or postulate, if any, from a supplied list would be used to prove congruence. There are 10 questions, and no help is available.
4. QUADRILATERALS

Four quadrilaterals, labeled A, B, C, and D are drawn, and you are asked to identify the one that is being described. There are 20 questions, and no help is available.
5. SIMILARITY

You are given a pair of similar triangles with certain segments labeled and are asked to determine a missing measure. There are 10 questions, and help is available. Paper and pencil and/or a calculator may prove useful.

## 6. RIGHT TRIANGLES

Given angle and/or side measures of a displayed triangle, you are asked questions which involve use of the Pythagorean Theorem, 30-60-90 ratios, 45-45-90 ratios, and trigonometry. There are 10 questions, and help is available. Paper and pencil and/or a calculator may prove useful. Trig and square root tables are unnecessary.
7. CIRCLES

You are shown a circle with certain parts drawn and labeled. You are asked to identify the parts and to determine angle and segment measures from given information. There are 20 questions, and help is available. Paper and pencil and/or a calculator may prove useful.

## CONTINUING THE PROGRAM

The directions "Type '2' to go on" in lower case letters appear in the two-part chapters. In these instances, you have no choice. Should you not type '2', the directions will be repeated.

The directions "TYPE ' 2 ' TO GO ONTO A NEW SECITON" in capital letters indicates that you have completed the chapter and may either do another chapter or end the program. If you type '2', the original menu will be displayed. If you type anything else, the program will end.

SCORING
Scoring is given for all sections except the proof in Chapter 2 where the answers are always visible. You are told how many questions you were able to correctly answer ON THE FIRST TRY and how many questions were in the section.

## INTERRUPTING OR RESTARTING

If you find yourself in a section that you simply do not wish to complete, type $M$, hit the return key, the lesson will be aborted and the original menu will reappear.

## TROUBLESHOOTING

You may encounter a question about which you are certain of the answer, yet the screen continues to tell you that you are wrong. Be sure to check the following:

1. Have you spelled the word correctly? Retype the word carefully.
2. Have you followed directions precisely as far as rounding a number or naming in a particular way? Remember...to round means to go to the NEAREST indicated decimal place and not simply to cut off extra decimal places.
3. Have you pressed the CAPS/LOWR key or the ATARI inverse key by accident? If so, change back to the standard display mode.
REMEMBER... All but the multiple choice questions allow you to get the correct answer by typing ? and pressing return. Therefore, you can always obtain the correct answer and work backwards to determine why it is so.
