

Long (official signed version)

A Mathematics Problem-Solving Adventure

In Search of the Secret Stone



Booklet of Student Activities

Contents

Introduction	1
Getting Started Sheet	2
Getting Started Quiz	4
Story Notes	5
Hint Sheets	11
Explorers' Notebook Pages	20
Map Outlines	21

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Open booklet to center and remove the staple.
Make copies of the student sheets.

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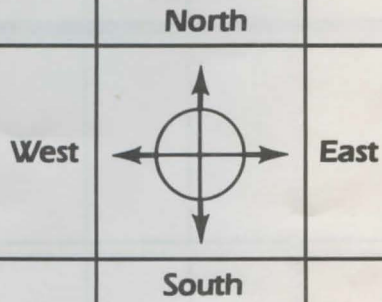


Map of Goff's Caves

Adventure Map B



Adventure Map A



Assembly Instructions for Adventure Map:

- Make 1 copy each of page 21 (A) and 23 (B).
- Trim one sheet at the center dashed line.
- Join sheets at dashed lines and tape or glue where the sheets overlap.



Volcano

Explorer's Notebook

Secret Stone
Words
ASK
LOOK
TALK

Location Name	_____
Objects, People, Animals	_____
Information/Clues/Conversations	_____
Measurements	_____
Danger/Special Notes	_____

HINTS

Gaylord's Puzzle

1. Gaylord offers his help, but only if you are prepared. Zandar gives you information about what it means to be prepared. Don't forget a reward for Gaylord. Make sure you have everything you need.
2. Lolly can give you a hint about Gaylord's reward, if you need it.
3. Colonel Gaylord will know if you are prepared, but you will have to OFFER his reward to him.

4. Once again you will have to do some clever trading. Extra hint: Lighting a dark place may reveal an interesting object.

3. Remember Tor's advice about the "right" conditions for sailing. Do you have in your inventory the tools you need to check these conditions?

2. What do you need to build your boat?

1. Check the beaches before you buy building materials. What do you find out?

Samara's Puzzle: Getting to Samara

HINTS

HINTS

A Visit with Tor

1. First you need to find Tor. TALK to everyone, including monkeys, to get clues.
2. What do you need in your inventory to get to Tor? Where and how do you get it? The right amount is important.

3. Record the weight of the bananas. How many bunches are being shipped?

2. You will need to WEIGH the bananas. Do you have what you need in your inventory?

1. What information do you get from Turland about today's challenge?

Turland's Puzzle

HINTS

HINTS

A Treasure Hunt

1. You will need a special tool for your hunt. Harry the hermit can help you. What does Harry give you?
2. Use Harry's reward for a job well done. Try new commands. What do you find?
3. Use the true clues and the commands COUNT and MEASURE to locate the magic spot. Record the data you collect.

3. Record the location of the two "true" clues, because you will probably have to leave and come back.
2. Make a complete map of the maze. Note the places where you run into trouble. Record the data you collect in the maze.
1. TALK to Proud Peter to get valuable hints about the location of the maze clues. Record all the information you gather. Don't forget the guard.

The Maze Secrets

HINTS

HINTS

Wella's Puzzle

1. Maria knows some important information that you must have to solve this problem. Use ASK. Record what Maria tells you.
2. Record what you find out when you MEASURE and COUNT the bundles.
3. Find out what Wella knows about llamas. Record this information.

3. Use the circle below to estimate the diameter of Zandar's fire circle. Follow these steps:

2. When you visit Furlot, the fire builder, use the commands MEASURE and COUNT. Record the information you get here.

Use OFFER _____ TO MARIA.
Use INV (to check your inventory).

What does Maria want in exchange?

1. What measuring tool do you find when you visit Maria?

Zandar's Puzzle

HINTS

Hints for Finding Water

What does Peter on his Perch say about finding safe water?

Where is the safe water?

What commands put water into the bottle?

Did you run into bad water? What happened?

Gorf's Puzzle

Colonel Gaylord is an important resource in your quest for the secret stone. Like others, he is not free with his help. He also tends to be very impatient, so be fully prepared when you seek his assistance.

Talk to the animals, because they like to gossip about Col. Gaylord. You will have to explore all parts of the land before you will be prepared to take advantage of Col. Gaylord's connections.

Record the data you collect about Gaylord's requirements for being prepared.

Gaylord's Puzzle

STORY NOTES

Samara's Puzzle

You cannot explore all this land on foot. In fact, you will have to find another way of traveling to get to Samara. Samara and her people trade animal hides and fish oil for food from the mainland. Samara is likely to ask you for help.

Gather all the data you need, before trying to solve her problem. If successful, you will receive a valuable trading item. But, if you fail, beware! Samara has quite a temper.

1. Record the important details about the journey to Samara.

2. Record the information you get from Samara about her problem.

Turland's Puzzle

Turland has a thriving banana business. Llamas carry shipments of bananas to a far-away port, and Turland is good at estimating the number of days that each shipment will take. He loves to challenge others to make these same calculations. If Turland gives you the chance, check out all the details of the problem, and then give him your estimate. If your estimate is close, he will share a secret with you. 1. Record all the information you have about Turland's puzzle.

2. What information do you need? Record data as you collect it.

STORY NOTES

STORY NOTES

Maze Secrets

In the ruins there is a maze filled with mysterious messages. Proud Peter, and someone near the maze, will be happy to give you hints about these messages.

When you find the maze, be sure to map it carefully—not an easy task! To discover the maze secrets, you may have to leave the maze to find an object. Some of the most helpful people in this adventure are interested in numbers, especially primes.

1. Record all the information you find about the maze and hints about the writing in the maze.

2. Record the maze messages.

Zandar's Puzzle

Zandar, the archer, is making plans for a big festival with many people from around her land. She is planning a special ceremony in which speeches will be given from a special magic fire circle. She will ask for help with the construction of this circle. If you help her, she will give you information.

After learning about Zandar's puzzle, you will need a certain object in your inventory before you can get all the necessary data. Use LOOK and OFFER to get the object. Then explore the area near Zandar and try the commands MEASURE and COUNT. You can solve Zandar's problem with a little sketch; tricky math is not necessary.

1. Record the problem here. Include all the information you have.

STORY NOTES

STORY NOTES

Wella's Puzzle

Wella and his llama are in business with Maria. They harvest reeds from the river, bundle them, and take them to Armando. Whenever Wella gets to the rickety old bridge, he stops in confusion. Since the length of the reeds is different each time, he is always uncertain about their weight and about how many bundles the llama can carry across without the bridge breaking.

You can help Wella for a reward, but you will need to collect several pieces of information. Remember the command ASK, and be sure to visit the bridge before giving Wella your answer.

1. Record the problem. Include all the information you have.

Getting Started Quiz

1. Name the six direction commands used for moving around.
2. Give an example of one command line that would move you through four rooms.
3. List six verb commands (not directions) that can be used in this adventure.
4. Suppose that you see a hut and want to look at it. Write the command you could use.
5. Suppose that you find Lolly Llama and want to hear what she has to say. What command do you use?

..... Getting Started

You can also ASK about things. Being curious pays off! The ASK command has a special format, typed this way: ASK MARIA ABOUT REEDS.

To trade something you have for something you want, use OFFER. For example, try OFFER BEADS TO PACO.

Keeping Track

These system commands help you throughout the game:

TEXT
PICT

SAVE
LOAD

If you type TEXT, the screen will show only text. This allows you to see what you have entered for the last few moves. You can return to the picture screen by typing PICT.

It is important to use the SAVE routine before you turn off the computer. With this option you can save the game you are playing. Then later, you can LOAD your game back into the computer and continue. You will need a blank disk initialized with 3.3

Here is a list of some of the useful verb commands:

On Your Search

If you make a mistake while typing, you can easily correct it. Move the cursor to the right of the letter and press CTRL-D. On the Apple IIe and IIc you can use the DELETE key in the same way.

to press RETURN.

automatically to the next five rooms. If there is animation in a room, you will have one time. For example, you could type: N.E.E.N.E. The program will move

After you have learned your way around, you can enter multiple commands all at Make a map as you explore. This will make it easier for you to get around quickly.

S (south), W (west), U (up), or D (down).

Explore! Move to new rooms (each location with a picture is called a room) by looking at the possible exits and typing a direction command: N (north), E (east),

Moving Around

Getting Started



Welcome to.

In Search of the Secret Stone

In this adventure, you set out on an expedition to find the secret stone, a rare gem of great scientific value. You parachute into an unknown land. As you descend your backpack breaks loose, scattering your equipment. You are relieved to see that your water bottle is safe, as you land on the rim of an old volcano. The stone is reported to be somewhere in this area, but where?

Your first task is to make a map of the area. A good map will help you move around quickly as you search for the stone. While mapping, make notes about the location of anything that seems important. As you get to know the people and animals at each location, many of them can help you in your search.

You will soon discover that the water level in your bottle is going down. You will need to locate a supply of safe water. By talking to characters near the volcano rim, you can get helpful information about safe water.

Once you have a map and know the location of safe water (there are several shortcuts to this water), explore each location carefully. LOOK at each location, TALK to the people and animals, and LOOK at objects. As you find items that might be useful, TAKE them with you. You may run into trouble and even lose some items, but you can usually recover them by looking around carefully.

Use these verbs (except OFFER, ASK, and INV) in two-word combinations with noun names of objects or characters that you find in the rooms. For example, GO CAVE or LOOK HUT. Sometimes you can use commands with more than two words, such as, GO TO CAVE or TALK TO GAYLORD. Try lots of commands. When you type INV (for Inventory), you will get a list of the objects you are carrying currently.

LOOK is a useful command to use while exploring. You can LOOK when you first enter a room. Then you can LOOK at different objects in the room, such as trees or reeds. For example, you could type LOOK REEDS.

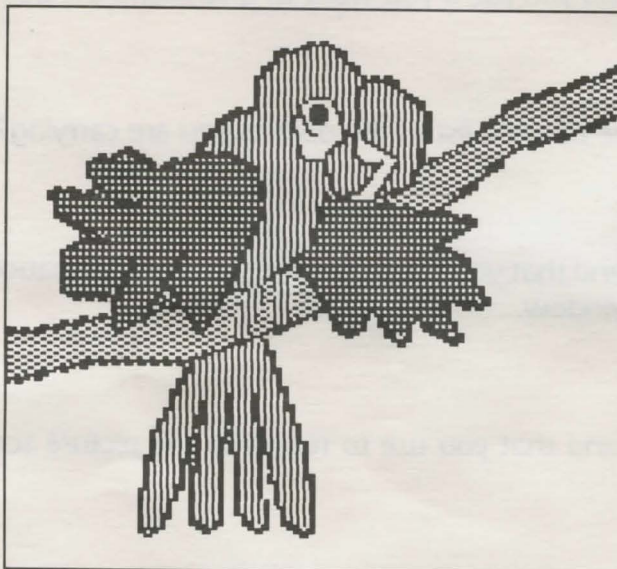
TALK is another useful command. Animals TALK as well as people in this adventure! For example, you could type TALK TO PETER or TALK PETER.

ASK	GO	LOOK	OFFER	PUT
GO	GO	GO	GO	GO
INV (for Inventory)	INV (for Inventory)	INV (for Inventory)	INV (for Inventory)	INV (for Inventory)

DO NOT save your games.

A Few Words of Advice

Keep a record of all the information you collect and watch your water supply at all times! If you get into trouble, you may lose some of the objects in your inventory. A careful search of the immediate area may yield results!



10. Write the command that you use to return to the picture screen from the text screen.
9. Write the command that you use to see the written information that has scrolled out of the text window.
8. What do you type to see a list of the objects you are carrying?
7. What command do you use if you want to give Maria the belt you found?
6. What command do you use if you are trying to get information about the maze from the guard?

2. What information and/or object(s) do you need? Record data as you collect it.

2. List the information and/or object(s) you need. Record the data as you collect it.

The Treasure Hunt

There is hidden treasure in the land of the secret stone, and a special tool is needed to get the treasure. There are two crazy hermits in this adventure. They are brothers and are both very fond of numbers. One of the hermits can help you locate the tool. Get the tool and the maze secrets and you will be ready to uncover the treasure.

Record the data you collect as you search for the treasure.

Record all the information you get from your visit to Tor.

Tor is a craggy old fellow who loves living among the leaves. He is very wary of strangers, but he will be helpful if you know a secret. You will need something in your inventory before you can reach Tor. Bargain well to get it. Be sure to LOOK at everything that Tor has.

A Visit with Tor

3. Record the rest of the data you collect.

4. If you are successful, what do you receive?

- Goff is a strange but friendly character who dwells underground. This strange fellow is fascinated by numbers! Be sure you understand all his terms when he gives you a puzzle to solve. When you reach Goff, you will be close to the end of your journey.
1. Record the information you get from Goff about his puzzle.
 2. Record the data you collect in Goff's caves.

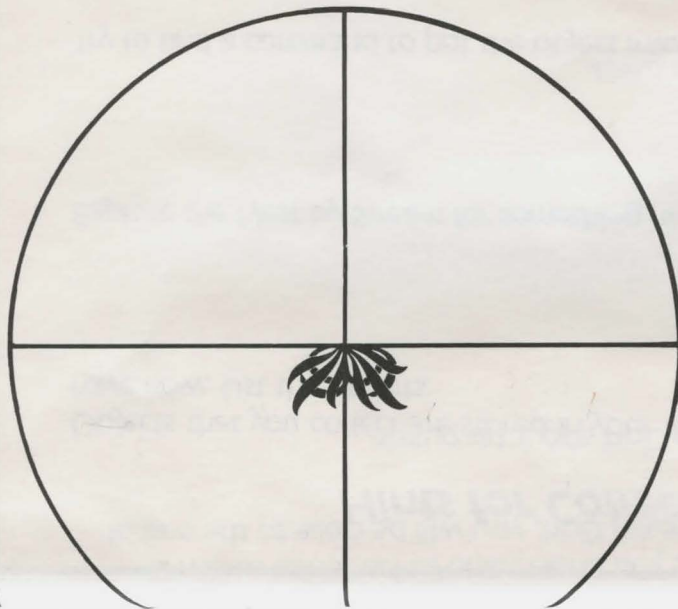
Hints for Collecting Objects

Objects that you collect are stored in your INVENTORY. Type INV to see what you have now. List the objects:

Explore the Nest by Stream for something hidden. What do you find?

Try to find a command to put the object into your inventory. What works?

Type INV again. Is the object in your inventory?



4. To answer the problem, TALK to Zandar again. Were you right or wrong? What happens?

- A. How many magic rocks? _____
- B. How big are the rocks? _____
- C. Where is the diameter? _____
- D. How many rocks should be used for $\frac{1}{4}$ of the circle? _____
- E. Use the size of your rocks to figure the diameter. _____

4. Pedro at the bridge can give you another piece of the puzzle. Record what he tells you.

5. Now put all the numbers together. (Remember, there are 16 ounces in a pound.) How many bundles of reeds will you tell Wella to load on the llama?

6. Right or wrong? What is your reward?

6. What are the two "true" clues?

5. What do you find out about flowers?

4. What do you need in your inventory in order to get the clues? Leave the maze and look for someone who knows about plants and primes. TALK to this person and ASK questions.

4. Did you get the treasure? How much?

5. If you are successful, you get something from Turand. What is it?

4. You will need to know how many llamas are assigned to the journey and something else about llamas. Use the TALK and ASK commands to get information from the nearby herdsman. Record your data.

3. When you reach Tor, use TALK and LOOK. Record everything he tells you, because this man is very wise. Also be sure to LOOK at everything he has to show you!

4. You can make a diagram or use a simple math formula to solve this problem. Samara hates to have things too large and she has a terrible temper, so be cautious!
3. Look for Tanya and use the commands TALK and ASK. Record the information you collect.
2. Use MEASURE to get additional information.
1. Record the information you get from Samara about her problem.

Samara's Puzzle: On the Island

Gorf's Puzzle

1. OFFER Gorf what you have brought for him; then he will present you with a puzzle. What does he tell you?
2. What is a palindrome?
3. To find the solution, you will need to explore Gorf's caves. In each cave, TAKE TEMPERATURE, WEIGH JAR, and MEASURE CAVE. Then add the numbers together for each cave. One of the caves contains the solution. You are almost to the end of your search!

Explorer's Notebook

Secret Stone
Words
ASK
LOOK
TALK

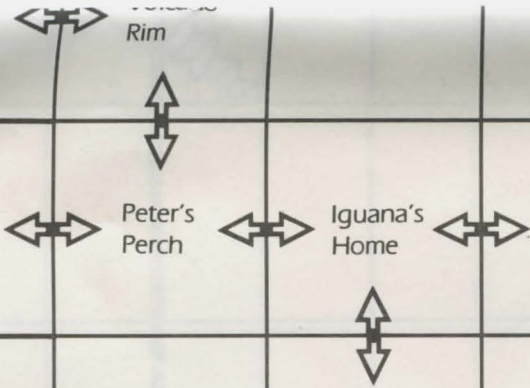
Location Name _____

Objects, People, Animals _____

Information/Clues/Conversations _____

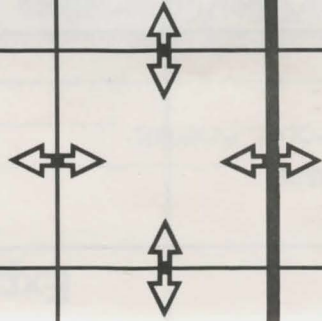
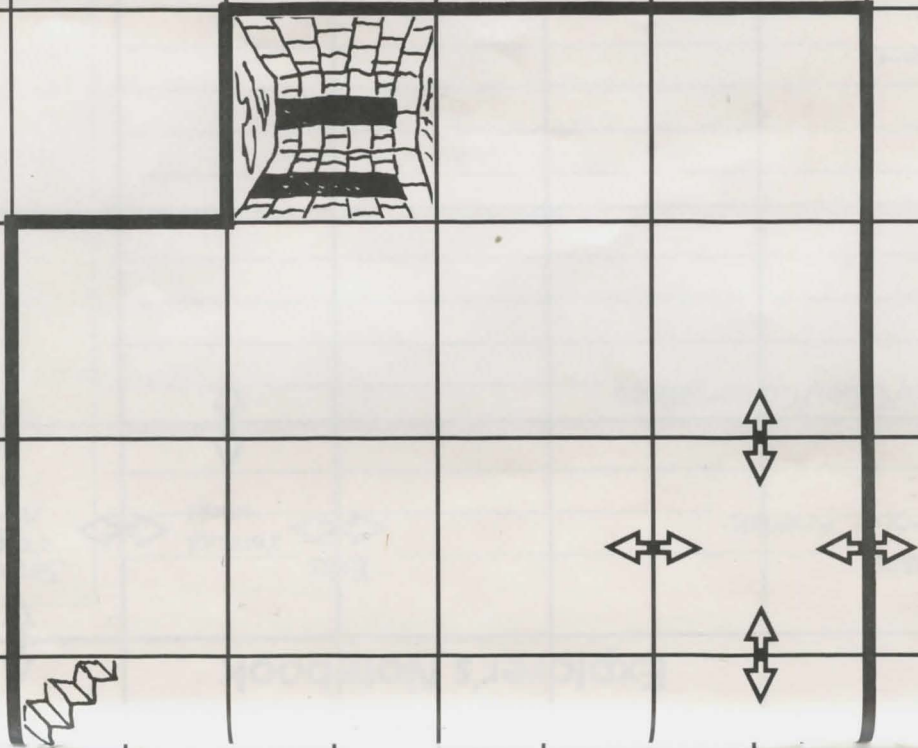
Measurements _____

Danger/Special Notes _____



Maze Map

Maze
Entrance



Goff's
Caves





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