

## ACTIVITY CONTENTS:

### Daily Log

- [Introduction](#)
- [Thinking About the Question](#)
- [Materials](#)
- [Safety](#)
- [Investigation I: Keep a daily log](#)
- [Investigation II: Find percentage of time use](#)
- [Investigation III: Making a pie \(or circle graph\) chart](#)
- [Technical Hints](#)
- [Analysis](#)
- [Further Investigation](#)





math

mobile inquiry technology

home

activities

help

## Daily Log Introduction

**Discovery Question:** How do I spend my time?



This activity will allow you to use a spreadsheet to calculate by percent how you spend your time during a 24-hour period and to represent it in a pie graph.

◀ back

activity contents

next ▶

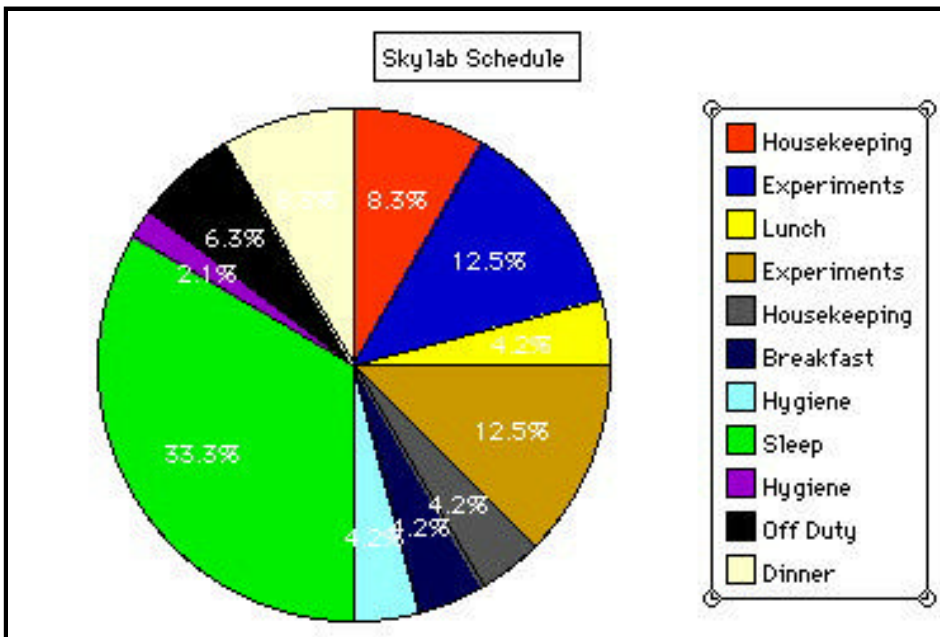
## Thinking About the Question

### How do I spend my time?

Many people have a particular routine that they follow every day. What is yours? How much of a day do you spend eating, sleeping, and playing? On your own make a list of the activities that you spend time on in one day. Make an estimate of the amount of time you spend on each. In your group find an activity that is common to each of you, but on which your time spent varies. Calculate the percentage of time each of you spends. Be prepared to present to the class the percentage each of you spends, the range of your data for that activity, as well as the median.

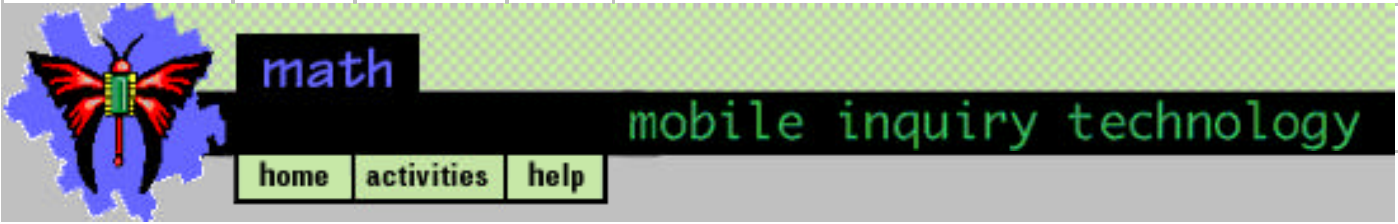
By finding the percentage of time that you spend on certain types of activities you can see how you spend your day. Is there a pattern to your days? In other words, do you have a regular routine? Do the weekdays differ drastically from the weekends?

Your schedule may be very different from others in your class. Often the daily routine that you are living in requires you to follow a schedule as closely as possible. Even SkyLab astronauts have a daily routine in space.



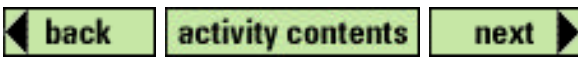
Observe how much time the SkyLab astronauts spend eating. What part of the whole day do you spend eating? Do you spend more or less time than other students in your class? The SkyLab astronauts slept for 33% ( $\frac{1}{3}$ ) of their day. How does your sleep time compare? SkyLab astronauts worked on their tasks for 25% ( $\frac{1}{4}$ ) of the day. What part of your day do you spend studying?

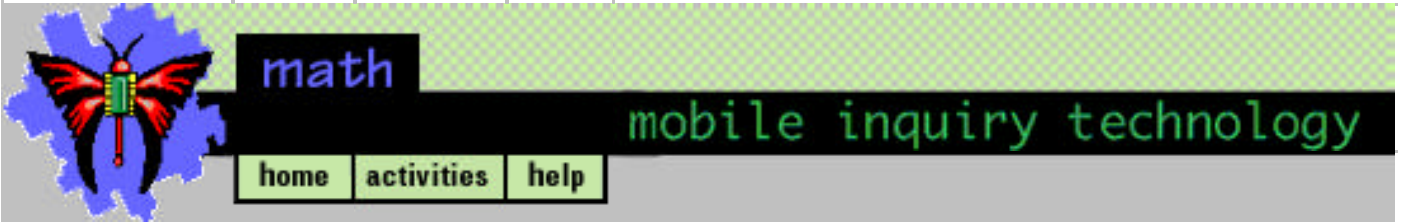
How do you spend your day? Go to the "Investigation" to see how you can use a spreadsheet to help you.



## Daily Log Materials

- note taking capabilities
- ClarisWorks
- colored pencils
- paper





## Daily Log Safety

No specific safety instructions are needed for this activity.





math

mobile inquiry technology

home

activities

help

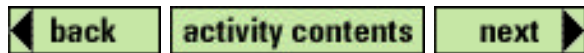
## Daily Log Investigation I

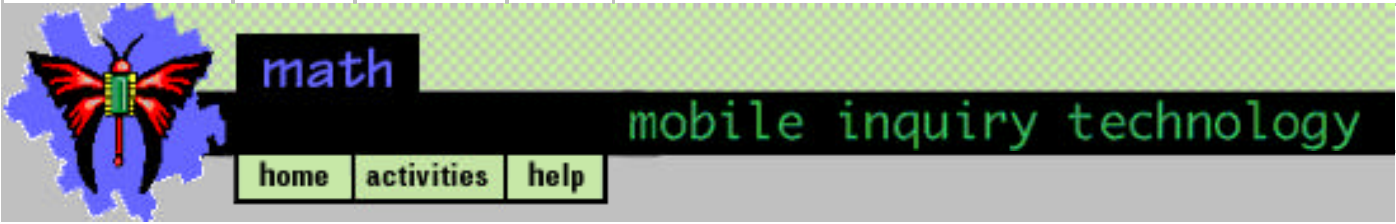
### Keep a daily log

For twenty-four hours, keep a log of how you spend your time. Categories might be sleeping, eating (e.g., breakfast, lunch, dinner, and snacks), studying, school, traveling, television, reading, exercising, etc. Make sure to record your time in minutes. You should have exactly 1440 minutes. This is the number of minutes in twenty-four hours.

Open a spreadsheet to record your log. Refer to [Technical Hints](#) to use a spreadsheet. Record your activities and time in minutes in the spreadsheet. You can use the spreadsheet to calculate the total minutes. Refer to [Technical Hints](#) on how to create a sum.

Answer Questions 1 and 2 in the analysis.



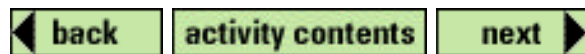


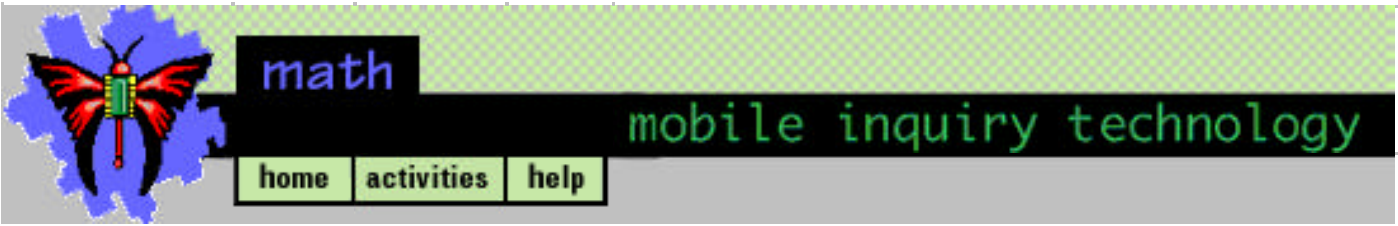
## Daily Log Investigation II

### Find percentage of time use

Percentages allow you to relate what part of the day you spend on each activity in relationship to the total day. To find percentages, you divide the number of minutes spent on one activity by the total number of minutes in a day and multiply by 100. This can be done on a spreadsheet for all of your activities once a formula is added. After moving a column, add a column for percentage. Refer to [Technical Hints](#) on how to move a column. Use the spreadsheet to calculate the percentages. Refer to [Technical Hints](#) on how to calculate percentages.

Answer Question 3 in the analysis.



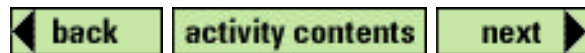


## Daily Log Investigation III

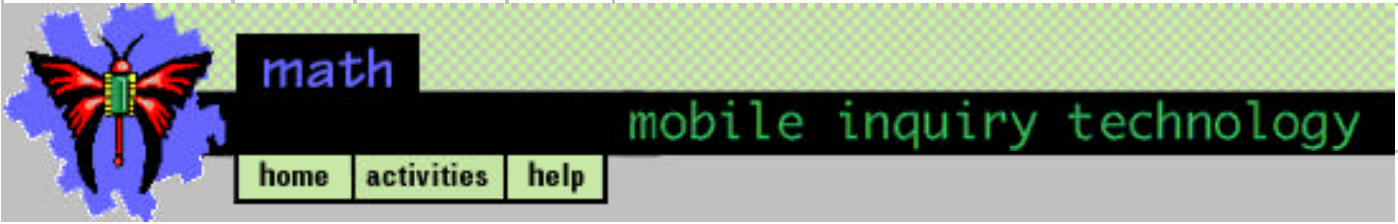
### Make a pie (or circle graph) chart

There is a much better way of displaying data so that you can see patterns. Pie or circle graphs show a picture of your data based on how much of each day you spend on your activities. You can even display your data in a pie or circle chart with percentages. Refer to [Technical Hints](#) on how to create a pie chart and display percentages on the pie chart.

Answer Questions 4, 5, and 6 in the analysis.

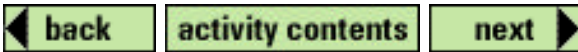






## Daily Log Technical Hints

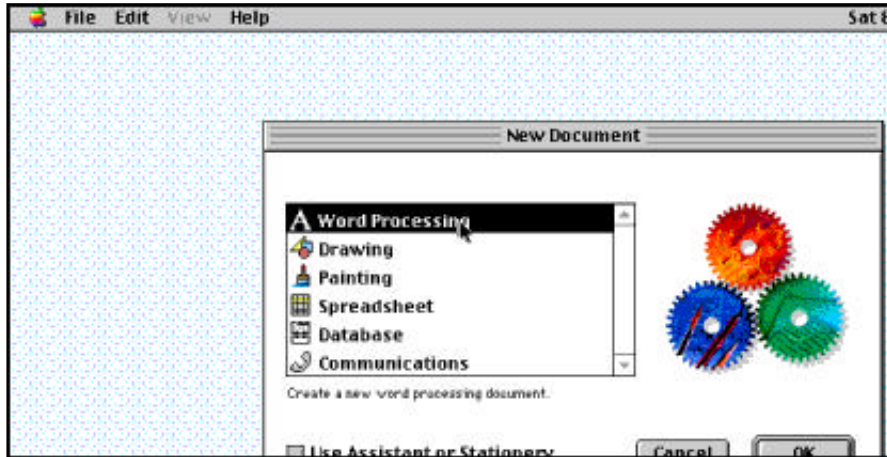
- [Opening a spreadsheet](#)
- [Entering headings and data in spreadsheet](#)
- [Creating a sum](#)
- [Moving columns](#)
- [Calculating percentages](#)
- [Making a pie chart with percentages](#)





### To open spreadsheet:

1. Double click on the ClarisWorks icon on the desktop. Select the spreadsheet option.



2. Spreadsheets are similar to databases for storing, sorting, and displaying information. Spreadsheets are often used to do computations and graphical displays.

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### Daily Log Technical Hints

#### To enter headings and data in spreadsheet:

1. Once a blank spreadsheet document is opened, you will use the cells and entry bar to organize your data. Whenever you click on a cell, its address (column letter and row number) will be shown in the entry bar.
2. Click on cell A1 and enter the label Daily Activity. Click the check mark to confirm the entry.
3. Head the second column with Time in Minutes. Enter your data.
4. Include a row for Sum.

The screenshot shows a spreadsheet application window titled "untitled (SS)". The spreadsheet has columns labeled A through G and rows numbered 1 through 19. The data entered is as follows:

	A	B	C	D	E	F	G
1	Daily Activity	Time in Minutes					
2	travelling	60					
3	breakfast	15					
4	school	180					
5	lunch	30					
6	school	180					
7	sports	150					
8	tv	90					
9	dinner	45					
10	hygiene	50					
11	studs						
12	sleep						
13							
14	Sum						
15							
16							
17							
18							
19							

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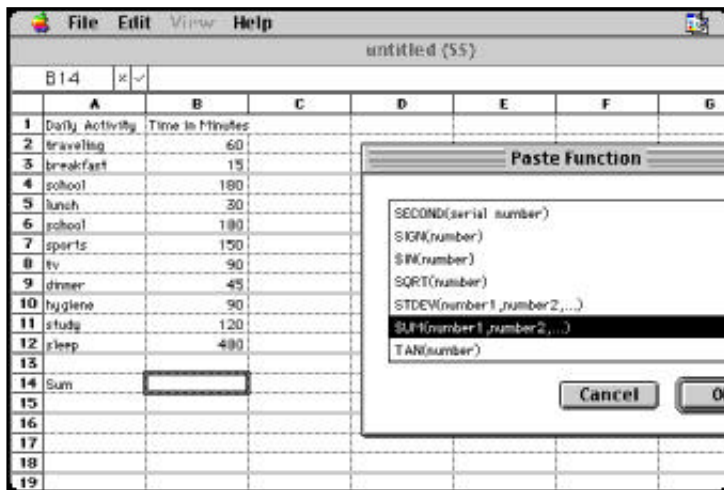


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### Daily Log Technical Hints

#### To create a sum:

1. Click on the cell to the right of sum.
2. Select the Paste Function under the Edit menu. Choose Sum from the submenu.
3. Highlight inside the parentheses and drag over your times you entered. Click on the check mark to verify your calculation.



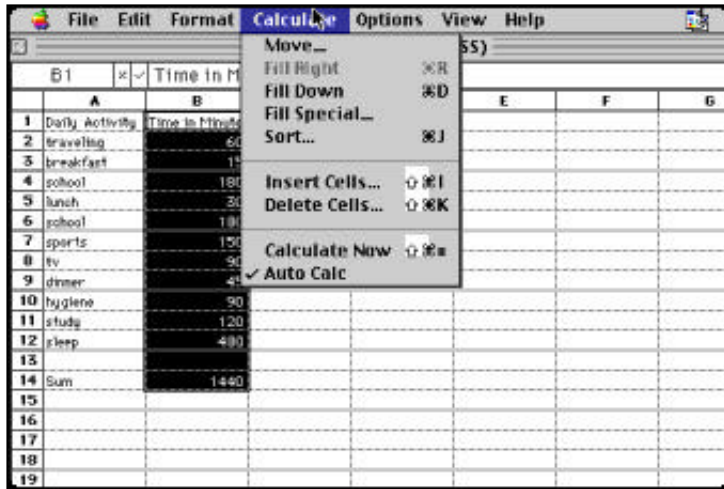
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## mobile inquiry technology Daily Log Technical Hints

### To move a column:

1. Highlight the entire second column.
2. Select Move from the Calculate menu. Move the column to the right by typing C1 in the box. Click OK.



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## mobile inquiry technology Daily Log Technical Hints

### To calculate percentages:

1. Click on B1 and title it percentage.
2. Click in B2 and type  $=C2/1440$  in the box in entry bar. Click on the check mark to verify the entry.
3. Double click on B2 and change the format to percentages.
4. Highlight the rest of the column and select Fill Down from the Calculate menu.

	A	B	C	D	E	F	G
1	Daily Activity	Percentage	Time in Minutes				
2	travelling	4.17%	60				
3	breakfast		15				
4	school		180				
5	lunch		30				
6	school		180				
7	sports		150				
8	tv		90				
9	dinner		45				
10	hygiene		90				
11	study		120				
12	sleep		480				
13							
14	Sum		1440				
15							
16							
17							
18							
19							

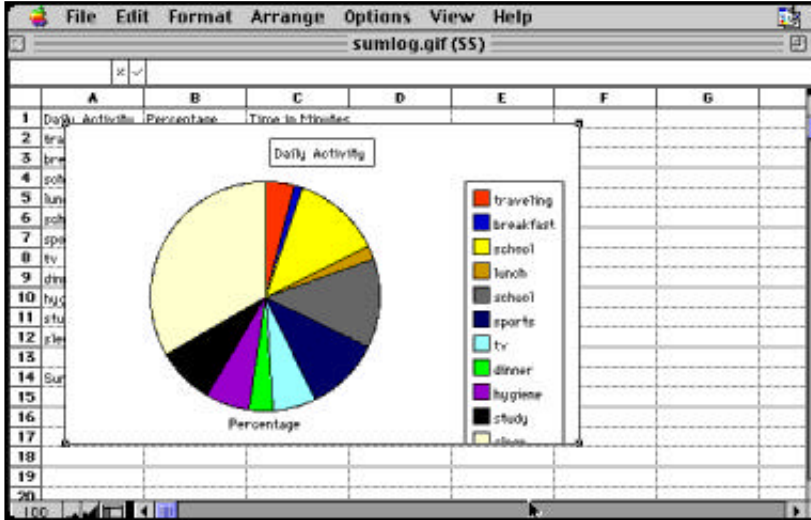
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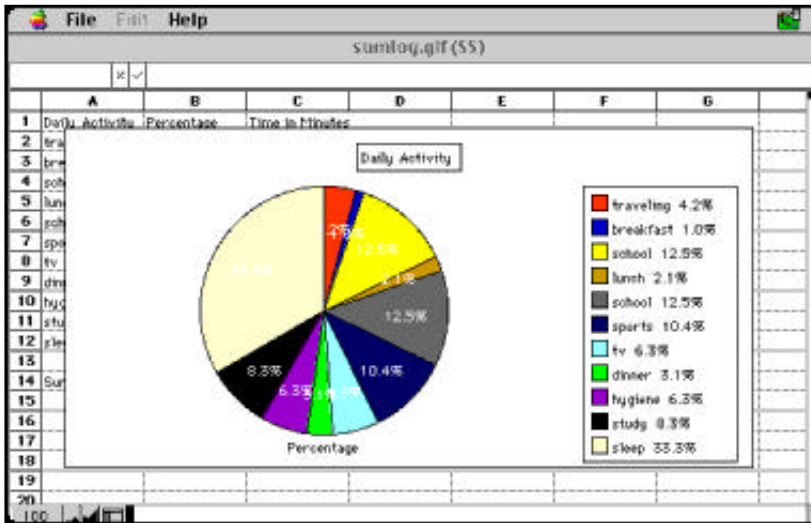
## mobile inquiry technology Daily Log Technical Hints

### To make a percentage pie chart:

1. Highlight the first two columns. Select Make Chart from the Options menu. Select Pie chart.



2. Double click on your pie chart and choose the Series button. Activate the Label data and select percentage in both the chart and legend.



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## Daily Log Analysis

Using the data on your spreadsheet, answer the following questions on paper:

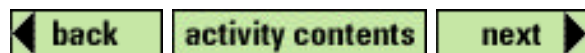
1. How many different activities are you involved in a day? Which takes the smallest amount of time? Which involves the largest use of time?
2. Talk with your partners and compare the types of activities and the amount of time that you spend on each. If you share activities (e.g., sports, sleep, studying, etc.), calculate the median (average) time value for each shared activity in your group. Did you spend more or less time than the average?

After you calculate percentages answer these questions:

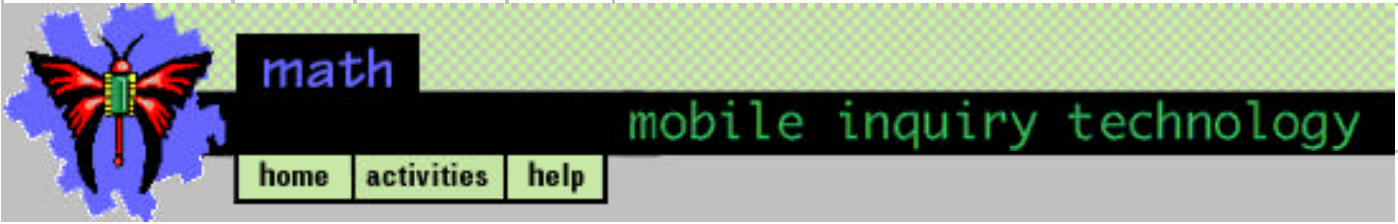
3. How do the percentages relate to the activities that you spend the smallest and largest amount of time on during a day? Compare your percentages to those of your partners.

Refer to [Technical Hints](#) on how to create a pie chart and display percentages. After creating a pie (or circle) chart, answer the following:

4. Compare pie charts with your partners. Do you and your partners have similar routines? Based on time (the slice of the pie), what activity do all of the members of your group spend the most time on?
5. With the pie charts in front of you write a paragraph that summarizes your findings about the similarities and differences in how the students in your group spend their time.
6. How does your chart compare to the SkyLab pie chart?







## Daily Log Further Investigation

Log your time for a complete week. How do the days compare? Do you have different routines on different days? Does the percentage of one activity change on the weekends versus weekdays?

