

Student Name:	Assignment 3
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Write a MIPS program to convert seconds to minutes and hours. **You must use procedures/subroutines in your code and follow the conventions discussed in class.**

1. Write a subroutine (**printMsg**) to print a message.
Parameters: 1st parameter should specify the message to print
Return Value: will not have a return value
2. Write a subroutine (**getInt**) to prompt the user for an integer and return the value entered.
Parameters: 1st parameter should specify the message to print
Return Value: the value entered
3. Write a subroutine (**calcMins**) to accept an integer that represents seconds and convert the value to number of minutes. *You will use integer math, so truncation will occur.*
Parameters: first parameter should specify the number of seconds
Return value: the number of minutes
4. Write a subroutine (**calcHours**) to accept an integer that represents seconds and convert the value to number of hours. *You will use integer math, so truncation will occur.*
Parameters: 1st parameter should specify the number of seconds.
Return value: the number of hours
5. Call a subroutine (**printInt**) that prints a label and an integer.
Parameters: 1st parameter should specify the string to print
2nd parameter should specify the integer to print
Return value: No return value
6. Call the subroutines created above to accomplish the following:
 - Print the message "Welcome to the time converter."
 - Ask the user to enter an integer with the message "Enter the number of seconds: "
 - Calculate the number of minutes.
 - Print the number of minutes with the message "Number of minutes: "
 - Calculate the number of hours.
 - Print the number of hours with the message "Number of hours: "
 - Print the message "Goodbye!"
 - Cleanly exit the program

Example output:

```
Welcome to the time converter.  
Enter the number of seconds: 7250  
Number of minutes: 120  
Number of hours: 2  
Goodbye!
```

The following are required for all assignments and are included in the rubric for grading:

- You need to name your file as “LastName-Name-HW3.asm” (Example: Talley-Michelle-Assign3.asm)
- Your program will need to have the exact output unless otherwise stated. ***Make sure to use spaces and newlines as required.***
- Your source needs to have comments that explain your implementation.
- Your procedures need to have comments similar to this:

```
#####
# printMsg
# Parameters:
#     $a0 - message to display
# Returns:
#     none
```

- You need to include a jump statement at the end of your mainline to jump around your procedures.

```
j exit
```

And a label to exit to at the end of your program:

```
exit:
li $v0, 10
syscall
```
- You need to include the following set of comments at the top of your source code for all assignments.

```
#Your Name
#Assignment # (Example: Assignment #3)
```
- You need to submit your source code on blackboard.