

COP 3223 Recitation: If Statement

Problem A: Orange Juice BOGOs

With your roommate taking your orange juice and all, you've decided that it's critical for you to take advantage of the "Buy One Get One" (BOGO) free offers at the nearby grocery store. Write a program that determines the total cost of buying orange juice under the BOGO offer.

Your program should ask the user to enter the price of one carton of juice as well as the number of cartons being purchased. Note that since juice is an ordinary grocery item, no sales tax is charged on it.

Sample Run (User input in bold and italics)

What is the cost of one container of OJ in dollars?

3.79

How many containers are you buying?

4

The total cost is \$7.58

Sample Run (User input in bold and italics)

What is the cost of one container of OJ in dollars?

4.50

How many containers are you buying?

5

The total cost is \$13.50

Problem B: Time for a Video Game?

Though your roommate steals your stuff, she's really fun to play video games with. But, you have to watch yourself because sometimes if you play too many video games, you won't get your programming homework done. Since you've learned a little bit of programming, you've decided to write a program to help you determine if you have the time to play video games with her in the first place!

We will assume that you have a homework assignment to do and that you know how much time it'll take to complete. We also assume that your roommate has asked you to play a video game for a fixed amount of time. Your program will take in all of this relevant information and then decide whether or not you can play the game.

Your program will prompt the user to enter the following pieces of information:

- 1) The current hour (integer from 0 to 23, inclusive, in military time)
- 2) The current minute (integer from 0 to 59, inclusive)
- 3) The amount of time in minutes the video game will take (positive integer)
- 4) The amount of time in minutes the homework will take (positive integer)
- 5) The hour at which the homework is due (integer from 0 to 23, inclusive, in military time)
- 6) The minute at which the homework is due (integer from 0 to 59, inclusive)

Note: The input times entered will be guaranteed to be such that you will always have enough time to finish your homework.

If there is enough time to play the game and do your homework, your program should print out:

Great, you can play the game and still finish your homework.

Otherwise, your program should print out:

Sorry, no game for you. Just do your homework.

Sample Run (User input in bold and italics)

Please enter the current hour and minute, separated by a space.

14 30

How many minutes will the video game take to play?

95

How many minutes will your homework take?

185

Please enter the hour and minute the homework is due.

19 5

Sorry, no game for you. Just do your homework.

Sample Explanation: The total time needed for both activities is $95 + 185 = 280$ minutes, which is 4 hours and 40 minutes. Thus, the time when both activities would be complete is 19 hours and 10 minutes, so the video game must be skipped. Had the homework been due at 19 hours and 10 minutes, then the user would get to play the video game.