

CS1173 HWP1: Translating word problems

Name: _____

Name: _____

The following table gives the counts of bacteria at two beaches.

Day	Beach 1 count	Beach 2 count
1	10	20
5	80	20
6	30	50
8	20	40
10	50	30
15	10	20
20	40	10

The shaded portion of this table corresponds to the MATLAB variable called `beaches`.

In this worksheet you will write MATLAB code to calculate various items. You and your partner will work on a single paper. One of you can type the code into MATLAB if you want to check your answers.

As soon as you are finished, you should hand in your sheet. If one of the classroom helpers (tutor, TA or instructor) says it is correct, you may leave early, or work on your lab. If there is a mistake, you and your partner will need to go back and work on the problems some more.

You may express your answers to later problems in terms of variables defined in earlier problems.

You may ask for help from other pairs. The classroom helpers will walk around and give hints, but not tell you the answers.

When the class ends, you must hand in the paper.

1. Define the variables `beach1` and `beach2` containing the bacterial counts for beach 1 and beach 2, respectively. Also define another variable containing columns for counts of both beaches.
2. Define an appropriately named variable that holds the total bacterial count for beach 1.
3. Define an appropriately named variable that holds the overall total bacterial count for the beaches.
4. Define an appropriately named variable that holds the total bacterial count for day 5.
5. Define an appropriately named variable that holds the percentage for beach 1's count that occurs on Day 15.
6. Define an appropriately named variable that holds the percentage of the total bacteria represented by Beach 1.
7. Define an appropriately named variable that holds the percentage of Day 5's count occurring on Beach 1.