
_____ **Test ID Number**

_____ **Student ID Num**

ID Sheet: Write your seven-digit BYUH Student ID number in the blank above. Turn in this sheet when you complete the test. It is due 180 minutes after the scheduled start of the exam. It will be kept separate until grading is completed, and will then be used to assign your score to the proper person.

The “In-Class Test Rules” provided herewith apply to this exam. Use the Test ID Number shown above to identify each of your answer sheets. **DO NOT WRITE YOUR STUDENT ID NUMBER OR NAME ON ANY OTHER TEST SHEET.** Each problem is worth the same amount.

Problem Set 1: Pick **ONE** of these problems and do it. It is due 40 minutes after the scheduled start of the exam.

1 Temperature: F to C

Prompt for and read in a temperature in Fahrenheit. Convert it to Celsius (centigrade) and print the result. $c = \frac{5}{9}(f - 32)$

2 N1 to N2

Prompt for and read two numbers, N1 and N2. Print the numbers from N1 to N2 (inclusive). You can assume N1 is smaller than N2 and the numbers are integers. Example: input 4 7, output 4 5 6 7. Don't worry about spacing, commas, or newlines.

Problem Set 2: Pick **ONE** of these problems and do it. It is due 100 minutes after the scheduled start of the exam.

3 More Than

Read lines from STDIN until you get a blank line. On each line is a number (e.g., 13 or 98.6). There will be at least one number. Report how many numbers were more (greater) than the last number read.

4 Pick A Card

Write a program to pick five cards at random (uniformly distributed) from a standard 52-card deck. Use these thirteen card values: A, 2, 3, 4, 5, 6, 7, 8, 9, T, J, Q, K. Use these four suits: S, H, D, C. The King of Diamonds should be printed as “KD”. The Ace of Spades should be “AS”. Announce the resulting cards. Don't worry about duplicates.

Problem Set 3: Pick **ONE** of these problems and do it. It is due 180 minutes after the scheduled start of the exam.

5 CGI Lucky or Not

Write a perl CGI program without “use CGI;” that displays one blank and invites the user to type in a number. When the user submits the form, the same CGI program runs, examines the number, and declares whether it is lucky, unlucky, or normal. Any number with a 7 in it is lucky. Any number with a 13 in it is unlucky. Any number with both or neither in it is normal. Examples: 37 is lucky, 213 is unlucky, 61 is normal, 137 is normal.

6 DBI Counting

Imagine a mysql database INVENTORY table. Each item in inventory has a VALUE. Write a program that uses a loop to examine every row in the table. Tell how many inventory items have a VALUE of 50.0 or more.

Problems were graded A, B, C, D, then averaged.