

# MIPS H2

**Due: May 15<sup>th</sup> with no late penalty until May 22<sup>nd</sup>**

**Write a MIPS assembly language program that accomplishes the following tasks:**

1. The program will prompt the user to enter an Integer between 1 and 10.  
If the entered number doesn't satisfy the above condition, use a loop and prompt the user for a new entry (until a valid number is entered)
2. Depending on the n value implement the following cases:

```

case 1: if 1 <= n <= 6 compute F(n):
        if (n=1 or n=2) then F(n) = 10
        else F(n) = 2n * F(n-1);

```

Display a `result_message` together with the numeric value of the result.

**NOTE:** use recursive function call.

case 2: if  $7 \leq n < 10$

1. Declare an array of 10 elements.
2. Prompt the user to enter one by one a sequence of 10 characters. For each entered character:
  - a. Read in the character.
  - b. Display the character.
3. Display the contents of the array in reverse order.

Your program should be well documented with comments.

Your console output should include helpful prompts for the user.

Case 3: if  $n = 10$

Display a joke.

**No cheating and/or plagiarism are allowed.**

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