

1) Write a JavaScript function to get the greatest common divisor (gcd) of two integers.

Sample Input:

12, 144;

Sample Output:

12

Sample Input:

95, 35;

Sample Output:

5

2) Write a Program for grading students

A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = 0-59

Bonus points for returning emoji's representing grades!

Sample Input:

85

Sample Output:

Grade is B 🏆

Sample Input:

62

Sample Output:

Grade is D 😞

3) Write a JavaScript program to determine whether a given year is a leap year in the Gregorian calendar.

Sample Input:

2016

Sample Output:

true

Sample Input:

1754

Sample Output:

false

- 4) Write a program for translating words into pig latin
1. For words that begin with consonants sounds, all letters before the initial vowel are placed at the end of the word sequence. Then "ay" is added (ex: "what" = "atwhay", "me" = "emay")
 2. When words begin with consonant clusters, the clusters should be moved to the end of the word sequence and "ay" is affixed (ex: "glove" = "oveglay").
 3. For words that begin with vowel sounds, simply add "way" to the end of the word (ex. "explain", "explainway")

Sample Input:

"water"

Sample Output:

"aterway"

Sample Input:

"elephant"

Sample Output:

"elephantway"

- 5) Given an integer, *n*, perform the following conditional actions:
- If *n* is odd, print Weird
 - If *n* is even and in the inclusive range of 2 to 5, print Not Weird
 - If *n* is even and in the inclusive range of 6 to 20, print Weird
 - If *n* is even and greater than 20, print Not Weird
- print whether or not *n* is weird.

Sample Input:

n = 3;

Sample Output:

"WEIRD"

Sample Input:

n = 22;

Sample Output:

"NOT WEIRD"

6) Check to see if a word is a palindrome (if you reverse a word and it is the same word)

Sample Input:

mom

Sample Output:

true

Sample Input:

racecar

Sample Output:

true

7) We are provided a positive integer num. Can you write a method to repeatedly add all of its digits until the result has only one digit?

Sample Input:

49

Sample Output:

4

Sample Input:

438

Sample Output:

6

8) Bubble Sort - use an array with length of 8
Compare the first item to the second item.
If the first item should be after the second item, swap them.
Compare the second item to the third item.
If the second item should be after the third item, swap them.
Continue until the end of the data set is reached.

Sample Input:

[7, 4, 45, 35, 19, 28, 101, 83]

Sample Output:

[4, 7, 19, 28, 35, 45, 83, 101]

Sample Input:

[100, 2, 5, 82, 43, 96]

Sample Output:

[2, 5, 43, 82, 96, 100]

9) *Return the length of the longest word in a sentence.*

Sample Input:

"Those who can imagine anything, can create the impossible."

Sample Output:

10

Sample Input:

"Those who dare to fail miserably can achieve greatly."

Sample Output:

9