

# MATH AND DATE METHODS

Assignment # 26-34  
JAVASCRIPT

MODULE A - Mobile & Cloud Computing

## | MATH METHODS | DATE METHODS |

1. Write a program that takes a **positive integer** from user & display the following in your browser.
  - a. number
  - b. round off value of the number
  - c. floor value of the number
  - d. ceil value of the number

```
number: 45  
round off value: 45  
floor value: 45  
ceil value: 45
```

2. Write a program that takes a **negative integer** from user & display the following in your browser.
  - a. number
  - b. round off value of the number
  - c. floor value of the number
  - d. ceil value of the number

```
number: -32  
round off value: -32  
floor value: -32  
ceil value: -32
```

3. Write a program that takes a **positive floating point** number from user & display the following in your browser.
- number
  - round off value of the number
  - floor value of the number
  - ceil value of the number

```
number: 3.45214  
round off value: 3  
floor value: 3  
ceil value: 4
```

4. Write a program that takes a **negative floating point** number from user & display the following in your browser.
- number
  - round off value of the number
  - floor value of the number
  - ceil value of the number

```
number: -2.673  
round off value: -3  
floor value: -3  
ceil value: -2
```

5. Write a program that displays the absolute value of a number.  
E.g. absolute value of -4 is 4 & absolute value of 5 is 5

The absolute value of -4 is 4

6. Write a program that simulates a dice using random() method of JS Math class. Display the value of dice in your browser.

random dice value: 4

random dice value: 6

7. Write a program that simulates a coin toss using random() method of JS Math class. Display the value of coin in your browser.

2  
random coin value: Heads

1  
random coin value: Tails

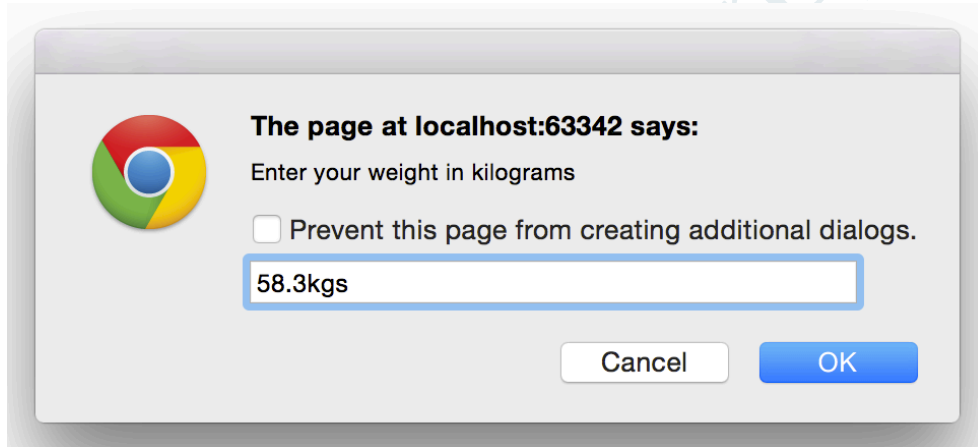
8. Write a program that shows a random number between 1 and 100 in your browser.

random number between 1 and 100: 84

random number between 1 and 100: 37

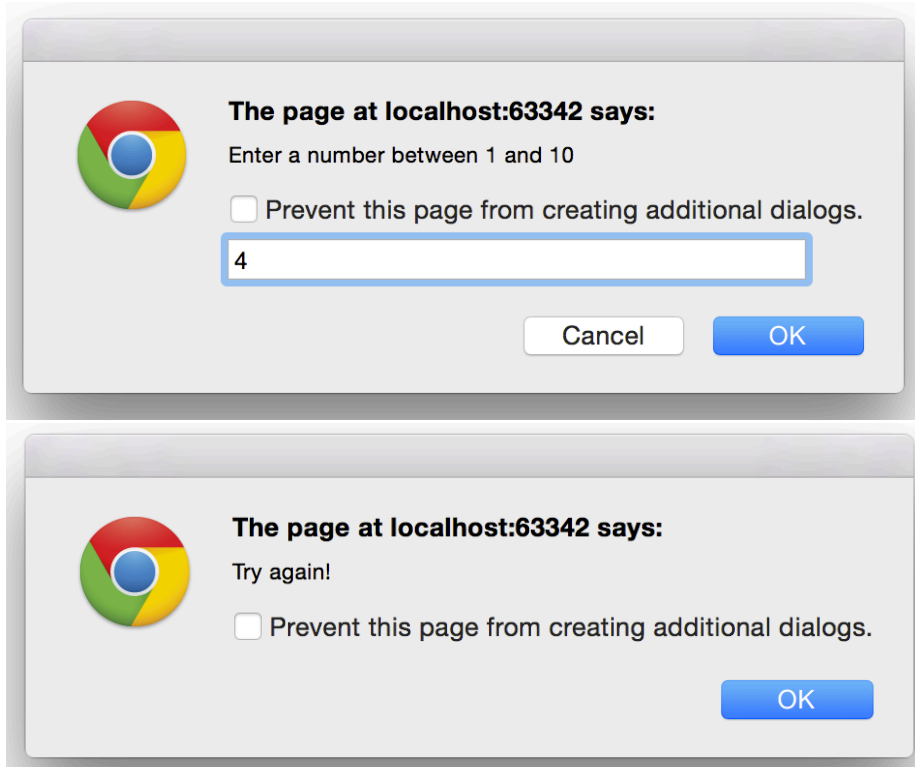
[Reload this page](#)

9. Write a program that asks the user about his weight. Parse the user input and display his weight in your browser. Possible user inputs can be:
- a. 50
  - b. 50kgs
  - c. 50.2kgs
  - d. 50.2kilograms



The weight of user is 58.3 kilograms

10. Write a program that stores a random secret number from 1 to 10 in a variable. Ask the user to input a number between 1 and 10. If the user input equals the secret number, congratulate the user.



11. Write a program that displays current date and time in your browser.

Sat Dec 05 2015 22:18:39 GMT+0500 (PKT)

12. Write a program that alerts the current month in words. For example December.

Current month: December

13. Write a program that alerts the first 3 letters of the current day, for example if today is Sunday then alert will show Sun.

Today is Sat

14. Write a program that displays a message “It’s Fun day” if its Saturday or Sunday today.

It's Fun day

15. Write a program that shows the message “First fifteen days of the month” if the date is less than 16<sup>th</sup> of the month else shows “Last days of the month”.

First fifteen days of the month

16. Write a program that determines the minutes since midnight, Jan. 1, 1970 and assigns it to a variable that hasn't been declared beforehand. Use any variable you like to represent the Date object.

Current Date: Sat Dec 05 2015 22:32:23 GMT+0500 (PKT)  
Elapsed milliseconds since January 1, 1970: 1449336743386  
Elapsed minutes since January 1, 1970: 402593.53982944443

17. Write a program that tests whether it's before noon and alert “Its AM” else “its PM”.

It's PM

18. Write a program that creates a Date object for the last day of the last month of 2020 and assigns it to variable named **laterDate**

Later date: Thu Dec 31 2020 00:00:00 GMT+0500 (PKT)

19. Create a date object of the starting date of this Ramadan and alert the number of days past since 1<sup>st</sup> Ramadan?

Note: 1<sup>st</sup> Ramadan was on June 18, 2015

171 days have passed since 1st Ramadan, 2015

20. Write a program that displays in your browser the seconds that elapsed between the reference date and the beginning of 2015.

On reference date Sat Dec 05 2015 22:50:16 GMT+0500 (PKT), 488091 seconds had passed since beginning of 2015

21. Create a Date object for the current date and time. Extract the hours, reset the date object an hour ahead and finally display the date object in your browser.



current date: Sat Dec 05 2015 23:08:16 GMT+0500 (PKT)  
 1 hour ago, it was Sat Dec 05 2015 22:08:16 GMT+0500 (PKT)

22. Write a program that creates a date object and show the date in an alert box that is reset to 100 years back?

current date: Sat Dec 05 2015 23:09:37 GMT+0500 (PKT)  
 100 years back, it was Sun Dec 05 1915 23:09:37 GMT+0500 (PKT)

23. Write a program to ask the user about his age. Calculate and show his birth year in your browser.

Your age is 21  
 Your birth year is 1994

24. Write a program to generate your K-Electric bill in your browser. All the amounts should be rounded off to 2 decimal places. Display the following fields:

- a. Customer Name
- b. Current Month
- c. Number of units
- d. Charges per unit
- e. Net Amount Payable (within Due Date)
- f. Late Payment Surcharge
- g. Gross Amount Payable (after Due Date)

Where,

Net Amount Payable (within Due Date) = Number of units \* Charges per unit  
 &

Gross Amount Payable (after Due Date) = Net Amount + Late Payment Surcharge

## K-Electric Bill

Customer Name: **Wajiha Kanwal**

Month: **December**

Number of units: **450**

Charges per unit: **14**

Net Amount Payable (within Due Date): **6300**

Late payment surcharge: **500**

Gross Amount Payable (after Due Date): **6800**

-- END --