DATE METHODS AND FUNCTION

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

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

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

> # Current month: December

3. 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

4. Write a program that displays a message "It's Fun day" if its Saturday or Sunday today.

It's Fun day

5. Write a program that shows the message "First fifteen days of the month" if the date is less than 16th of the month else shows "Last days of the month".

First fifteen days of the month

6. 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

7. Write a program that tests whether it's before noon and alert "Its AM" else "its PM".

It's PM

8. 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)

9. Create a date object of the starting date of this Ramadan and alert the number of days past since 1st Ramadan?
Note: 1st Ramadan was on June 18, 2015

171 days have passed since 1st Ramadan, 2015

10. 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

11. 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)

12. 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)

13. 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

14. 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: **ABC Customer**
Month: **February**
Number of units: **410**
Charges per unit: **16**

Net Amount Payable (within Due Date): **6560**
Late payment surcharge: **350**
Gross Amount Payable (after Due Date): **6910**

15.   Create a block of code that you can use several times.

16.   Write a function that displays current date & time in your browser.

17. Write a function that takes first & last name and then it greets the user using his full name.

18. Write a function that adds two numbers (input by user) and returns the sum of two numbers.

19. **<u>Calculator:</u>**
Write a function that takes three arguments num1, num2 & operator & compute the desired operation. Return and show the desired result in your browser.

20. Write a function that squares its argument.

21. Write a function that computes factorial of a number.

22. Write a function that take start and end number as inputs & display counting in your browser.

23. Write a nested function that computes hypotenuse of a right angle triangle.
$$Hypotenuse^2 = Base^2 + Perpendicular^2$$
Take base and perpendicular as inputs.
Outer function : calculateHypotenuse()
Inner function: calculateSquare()

24. Write a function that calculates the area of a rectangle.
    A = width * height
    Pass width and height in following manner:
        i. Arguments as value
        ii. Arguments as variables

25. Write a JavaScript function that checks whether a passed string is palindrome or not?
    A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam.

26. Write a JavaScript function that accepts a string as a parameter and converts the first letter of each word of the string in upper case.
    EXAMPLE STRING : 'the quick brown fox'
    EXPECTED OUTPUT : 'The Quick Brown Fox'

27. Write a JavaScript function that accepts a string as a parameter and find the longest word within the string.
    EXAMPLE STRING : 'Web Development Tutorial'
    EXPECTED OUTPUT : 'Development'

28. Write a JavaScript function that accepts two arguments, a string and a letter and the function will count the number of occurrences of the specified letter within the string.
    Sample arguments : 'JSResourceS.com', 'o'

29. **The Geometrizer**

Create 2 functions that calculate properties of a circle, using the definitions here.

Create a function called calcCircumference:

- Pass the radius to the function.
- Calculate the circumference based on the radius, and output "The circumference is NN".

Create a function called calcArea:

- Pass the radius to the function.
- Calculate the area based on the radius, and output "The area is NN".

Circumference of circle   = $2\pi r$

Area of circle   = πr^2

-- END --