MATH EXPRESSIONS

Assignment # 5

JAVASCRIPT

1. Write a program that take two numbers & add them in a new variable. Show the result in your browser.

Sum of 3 and 5 is 8

2. Repeat task1 for subtraction, multiplication, division & modulus.
3. Do the following using JS Mathematic Expressions
   a. Declare a variable.
   b. Show the value of variable in your browser like “Value after variable declaration is: ??”.
   c. Initialize the variable with some number.
   d. Show the value of variable in your browser like “Initial value: 5”.
   e. Increment the variable.
   f. Show the value of variable in your browser like “Value after increment is: 6”.
   g. Add 7 to the variable.
   h. Show the value of variable in your browser like “Value

after addition is: 13".
i. Decrement the variable.
j. Show the value of variable in your browser like "Value after decrement is: 12".
k. Show the remainder after dividing the variable's value by 3.
l. Output : "The remainder is : 0".

Value after variable declaration is undefined
Initial value: 5
Value after increment is: 6
Value after addition is: 13
Value after decrement is: 12
The remainder is: 0

4. Cost of one movie ticket is 600 PKR. Write a script to store
ticket price in a variable & calculate the cost of buying 5 tickets
to a movie. Example output:

Total cost to buy 5 tickets to a movie is 3000PKR

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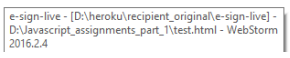
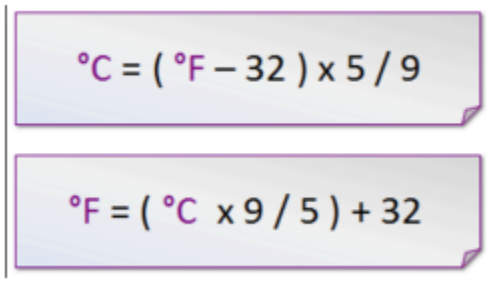
5. Write a script to display multiplication table of any number in your browser. E.g

Table of 4
4x1=4
4x2=8
4x3=12
4x4=16
4x5=20
4x6=24
4x7=28
4x8=32
4x9=36
4x10=40



6. **The Temperature Converter:** It's hot out! Let's make a converter based on the steps here.
   a. Store a Celsius temperature into a variable.
   b. Convert it to Fahrenheit & output "NNoC is NNoF".
   c. Now store a Fahrenheit temperature into a variable.
   d. Convert it to Celsius & output "NNoF is NNoC".

Conversion Formulae:



25^0C is 77°F
70^0F is 21.111111111111111°C

7. Write a program to implement checkout process of a shopping cart system for an e-commerce website. Store the following in variables

a. Price of item 1
b. Price of item 2
c. Ordered quantity of item 1
d. Ordered Quantity of item 2
e. Shipping charges

Compute the total cost & show the receipt in your browser.

Shopping Cart

Price of item 1 is 650
Quantity of item 1 is 3
Price of item 2 is 100
Quantity of item 2 is 7
Shipping Charges 100

Total cost of your order is 2750

8. Store total marks & marks obtained by a student in 2 variables. Compute the percentage & show the result in your browser

Marks Sheet

Total marks: 980
Marks obtained: 804
Percentage: 82.0408163265306%

9. Assume we have 10 US dollars & 25 Saudi Riyals. Write a script to convert the total currency to Pakistani Rupees. Perform all calculations in a single expression. (Exchange rates : **1 US Dollar = 104.80 Pakistani Rupee** and **1 Saudi Riyal = 28 Pakistani Rupee**)

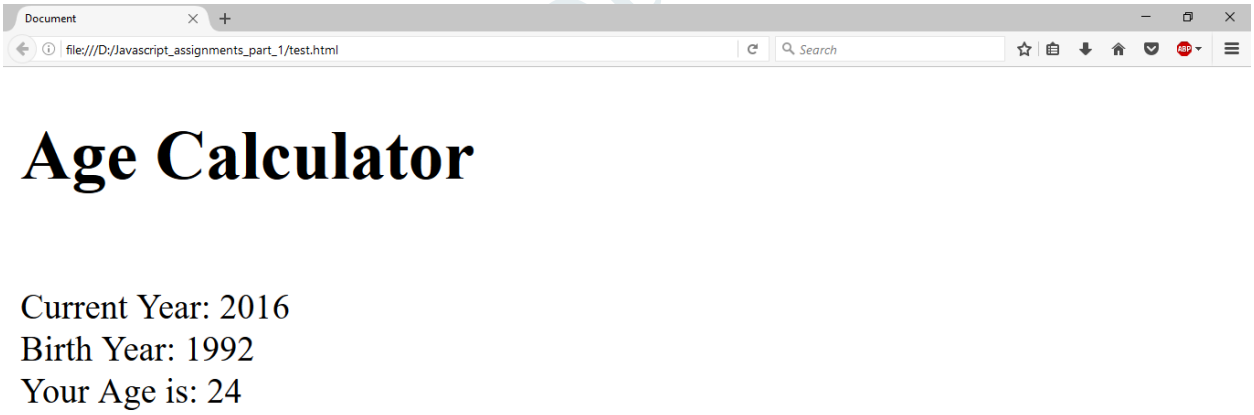
Currency in PKR

Total Currency in PKR: 1748

10. Write a program to initialize a variable with some number and do arithmetic in following sequence:
    a. Add 5
    b. Multiply by 10
    c. Divide the result by 2
    Perform all calculations in a single expression

11. **The Age Calculator:** Forgot how old someone is? Calculate it!
    a. Store the current year in a variable.
    b. Store their birth year in a variable.
    c. Calculate their 2 possible ages based on the stored values.

Output them to the screen like so: "They are either NN or NN years old".



12. **The Geometrizer:** Calculate properties of a circle.
    a. Store a radius into a variable.

b. Calculate the circumference based on the radius, and output "The circumference is NN".
(Hint : Circumference of a circle = 2 π r , π = 3.142)
Calculate the area based on the radius, and output "The area is NN". *(Hint : Area of a circle = π r2, π = 3.142)*

The Geometrizer

Radius of a circle: 20
The circumference is: 125.67999999999999
The area is: 1256.8

13. **The Lifetime Supply Calculator:** Ever wonder how much a "lifetime supply" of your favorite snack is? Wonder no more.
a. Store your favorite snack into a variable
b. Store your current age into a variable.
c. Store a maximum age into a variable.
d. Store an estimated amount per day (as a number).
e. Calculate how many would you eat total for the rest of your life.

Output the result to the screen like so: "You will need NNNN to last you until the ripe old age of NN".

The Lifetime Supply Calculator

Favourite Snack: chocolate chip
Current age: 15
Estimated Maximum Age: 65
Amount of snacks per day: 3
You will need 150 chocolate chip to last you until the ripe old age of 65