**Tutorial 1 : Answer** **Name : Lim De Sheng Student ID : 1288666V**

**Question 1:**

let p=53

console.log(p) //Outcome : 53

console.log(typeof p) //Outcome : number

let food = "nasi lemak"

console.log(food) //Outcome: nasi lemak

console.log(typeof food) //Outcome: string

let status = true

console.log(status) //Outcome: true

console.log(typeof status) //Outcome: boolean

let x=null

console.log(x) //Outcome : null

console.log(typeof x) //Outcome: object

let y

console.log(y) //Outcome: undefined

console.log(typeof y) //Outcome: undefined

**Question 2:**

let age=25

let gst=0.09

let isRaining="false"

let username="Samantha Brown"

console.log(age) //Outcome: 25

console.log(gst) //Outcome: 0.09

console.log(isRaining) //Outcome: false

console.log(username) //Outcome : Samantha Brown

**Question 3:**

let x = 10

let y = 6

let addition = x + y

let substraction = x - y

let multiplication = x \* y

let division = x / y

let modulus = x % y

console.log(addition) //Outcome: 16

console.log(substraction) //Outcome: 4

console.log(multiplication) //Outcome: 60

console.log(division) //Outcome: 1.6666666666666667

console.log(modulus) //Outcome: 4

**Question 4:**

let num1 = 10

let num2 = 6

let addition = num1 + num2

let substraction = num1 - num2

let multiplication = num1 \* num2

let division = num1 / num2

let modulus = num1 % num2

console.log(addition) //Outcome: 16

console.log(substraction) //Outcome: 4

console.log(multiplication) //Outcome: 60

console.log(division) //Outcome: 1.6666666666666667

console.log(modulus) //Outcome: 4

**Question 5:**

let cost = 1.50

let numberOfDonuts = 20

let total = cost \* numberOfDonuts

console.log(`Total Cost = ${total}`) //Outcome: Total Cost = 30

**Question 6:**

let taxRate = 2.9/100

let income = 450000

let totalPayment = taxRate \* income

console.log(`Total Tax need to pay is $${totalPayment}`) //Outcome: Total Tax need to pay is $13050

**Question 7:**

let length = 8 //Assume unit in cm

let width = 10 //Assume unit in cm

let area = length \* width

console.log(`The area of rectangle is ${area}cm2`) //Outcome: The area of rectangle is 80cm2

**Question 8:**

let d = 1

let c = 0.2

let n = 10

let Total\_amount = (d+c)\*n

console.log(`Total Cost of ${n} muffins is SGD ${Total\_amount} : ($${(d+c)}/nos)`)

//Outcome: Total Cost of 10 muffins is SGD 12 : ($1.2/nos)

**Question 9:**

const prompt = require('prompt-sync')();

let num1 = prompt("Enter Num1")

let num2 = prompt("Enter Num2")

let total = num1 \* num2

console.log(`${total}`) //Outcome Product of two numbers

**Question 10:**const prompt = require('prompt-sync')();

let Birthyear = prompt("Enter Your Birth Year (YYYY):")

let currentyear =prompt("Enter the current Year (YYYY):")

let age = currentyear - Birthyear

console.log(`Your age is: ${age}`) //Print Age

**Question 11:**

const prompt = require('prompt-sync')();

let radius= parseFloat(prompt("Enter Radius:"));

const pi = 3.1417;

const area = pi \* radius \*radius;

console.log(`The area of the circle is ${area.toFixed(2)}`); //Print Radius

**Question 12:**

const prompt = require('prompt-sync')();

let Num1= parseInt(prompt("Enter Integer Numer 1:"));

let Num2= parseInt(prompt("Enter Integer Numer 2:"));

let Num3= parseInt(prompt("Enter Integer Numer 3:"));

let Num4= parseInt(prompt("Enter Integer Numer 4:"));

let Ave = (Num1 + Num2 + Num3 + Num4)/4

console.log(`The Average of these four numbers is ${Ave}`); //Print Average of four numbers

**Question 13:**

let a = 5;

let b = 10;

a = a + b; //15

b = a - b; //5

a = a - b; //15 - 5 = 10

console.log(`Before Swapping a = ${a} and b = ${b}`) //Outcome: After Swapping a = 5 and b = 10

**Question 14:**  
let Cel = 35;

const Fah = (Cel \*9/5)+32;

console.log(`Temperature of Celsius ${Cel} in Fahrenheit is ${Fah}`)  
//Outcome: Temperature of Celsius 35 in Fahrenheit is 95

**Question 15:**

let num = -6;

if(num>0){

console.log(`Number is Positive`);

} else if (num<0){

console.log(`Nummber is negative`);

} else{

console.log(`Key in number is O`);

}

console.log(`Done`);

**Question 16:**

let num = 56

let Re = num%2

if(Re==0){

console.log(`${num} is even number`);

} else{

console.log(`${num} is odd number`);

}

console.log(`done`)

**Question 17:**const prompt = require('prompt-sync')();

let score= parseInt(prompt("Enter Score:"));

if(score>=90 && score<=100){

console.log(`Your Grade is A`);

} else if (score>=80 && score<=89){

console.log(`Your Grade is B`);

} else if (score>=70 && score<=79){

console.log(`Your Grade is C`);

} else if (score>=60 && score<=69){

console.log(`Your Grade is D`);

} else if(score<=60){

console.log(`You Failed`)

} else{

console.log(`Invalid Score!`)

}

console.log(`done`)

**Question 18:**

let isSunny = false;

let isCloudy = true;

let isEveGoing = true;

let isTuesday = false;

let isJaniceGoing = false;

if ((isCloudy === true || isSunny === false) && isEveGoing === true && isTuesday === false && isJaniceGoing === false) {

console.log("Going to the beach!");

} else {

console.log("Not going to the beach!");

}

//Outcome: Going to the beach!

**Question 19:**

const prompt = require('prompt-sync')();

let joAge= parseInt(prompt("Enter Jo's Age: "));

let joHeight= parseInt(prompt("Enter Jo's Height: "));

let joscore = (joAge\*5) + joHeight

console.log(`Jo's Age and Height are: ${joAge} years old and ${joHeight}cm. His score is ${joscore.toFixed(2)}`)

let friendAge= parseInt(prompt("Enter Friend's Age: "));

let friendHeight= parseInt(prompt("Enter Friend's Height: "));

let friendscore = (friendAge\*5) + friendHeight

console.log(`Jo's Friend Age and Height are: ${friendAge} years old and ${friendHeight}cm. His score is ${friendscore.toFixed(2)}`)

if(joscore>friendscore){

console.log(`JO WINS!`)

} else if (joscore<friendscore){

console.log(`FRIEND WINS!`)

} else{

console.log(`DRAW!`)

}

let friend2Age= parseInt(prompt("Enter Other Friend's Age: "));

let friend2Height= parseInt(prompt("Enter Other Friend's Height: "));

let friend2score = (friend2Age\*5) + friend2Height

console.log(`Jo's Other Friend Age and Height are: ${friend2Age} years old and ${friend2Height}cm. His score is ${friend2score.toFixed(2)}`)

if (joscore > friendscore && joscore > friend2score) {

console.log(`JO WINS!!`);

} else if (friendscore > joscore && friendscore > friend2score) {

console.log(`FRIEND WINS!!`);

} else if (friend2score > joscore && friend2score > friendscore) {

console.log(`OTHER FRIEND WINS!!`);

} else {

console.log("DRAW!");

}

**Question 20:**  
const prompt = require('prompt-sync')();

let psi = parseFloat (prompt("Please Enter the PSI level: "));

if (isNaN(psi)) {

console.log("Invalid input. Please enter a valid floating-point number.");

} else {

if (psi >= 100) {

console.log("Unhealthy");

} else if (psi > 50 && psi < 100) {

console.log("Moderate");

} else {

console.log("Healthy");

}

}

**Question 21:**

const prompt = require('prompt-sync')();

let X= parseFloat(prompt("Muffin Cost in Dollars:"));

let Y= parseFloat(prompt("Muffin Cost in Cents:"));

let Z= parseFloat(prompt("Number of Muffins:"));

Total= (X+ (Y/100))\*Z;

TotalD= Z\*X;

TotalC= (Total - TotalD)\*100;

console.log(`Total cost of ${Z} muffins is $${TotalD} and ${TotalC.toFixed(2)}cents ($${Total.toFixed(2)})`)

**Question 22:**let x = 3;

let y = 8;

let firstName = "Charlie";

let raining = false;

let snowing = false;

let windy = true;

//Hint: It will be one of the following symbols: +,-, /, \*, !, >, <, <=, >=, ==, != or a string

if (x + y > 10) {

console.log("Good!");

}

if (x- y < 0) {

console.log("Good!");

}

if (x+y >= 11) {

console.log("Good!");

}

if (y- x >= 5) {

console.log("Good!");

}

if (x != y) {

console.log("Good!");

}

if (raining == false) {

console.log("Good!");

}

if (firstName != "jason") {

console.log("Good!");

}

if (firstName = "Charlie") {

console.log("Good!");

}

//Outcome:   
Good!

Good!

Good!

Good!

Good!

Good!

Good!

Good!