```
<script>
          //ex1
           var f=3;
          var sum=(a)=>{
              var b=1;a=a+b;
              let f=1;
              return (b)=>{
                  if(b%2==0){let a=b+1;}
                  f=f+a;
                  return a+f
              }
          }
          var x=sum(1);
          var y=sum(1);
          console.log(x(1)); //5
          console.log(y(2));  //5
          console.log(x(2));//7

        //exo2.
        var JsonT='[{"nom": "Samir", "Notes":[{"Mat":"PWA","Moy":15},{"Mat":"SE","Moy":13}]},{"nom": "Sara", "Notes":[{"Mat":"PWA","Moy":5},{"Mat":"SE","Moy":7}]}]';
        //1
        var obj=JSON.parse(JsonT);
        //2
        const Students = obj.filter(e=>e.Notes[0].Moy>10);
        //3
        const ul=document.querySelector('ul');
         obj.forEach(item=>{
                let li=document.createElement('li');
                li.textContent=item.nom;
                ul.appendChild(li)
          })
        //4
            let elem= ul.firstElementChild;
            elem.addEventListener('click',()=>{   //  une fonction quelconque  f1, par exemple:
               // elem.style.color="red"
            })
        //ex3.
        //1  callback
           let A=(t,x)=>setTimeout(()=>{console.log("If you want");x(2000,C)},t);
           let B=(t,x)=>setTimeout(()=>{console.log("something done right");x(1000)},t);
           let C=(t)=>setTimeout(()=>console.log("do it yourself"),t);
           A(3000,B);
         //2  Promise
          let A=new Promise(resolve=>setTimeout(()=>resolve("If you want"),3000))
          let B=new Promise(resolve=>setTimeout(()=>resolve("something done right"),2000))
          let C=new Promise(resolve=>setTimeout(()=>resolve("do it yourself"),1000))
          A
          .then((x)=>{console.log(x); return B})
          .then((x)=>{console.log(x); return C})
          .then((x)=>console.log(x))
          //4 Async & await
          async function test(){
            let x= await A;
            console.log(x);
            let y= await B;
            console.log(y);
            let z= await C;
            console.log(z);
          }
```

```
        test();
      // ex4
      //  JavaScript
        var n=document.getElementById("number");
        b1.addEventListener('click',CalculerFac);
        function CalculerFac(){
        var xhttp = new XMLHttpRequest();
        xhttp.open("GET","exam2023.php?v1="+n.value, true);
        xhttp.onreadystatechange = function() {
        if (this.readyState == 4 && this.status == 200) {
             document.getElementsByTagName("div")[0].innerHTML = this.responseText;
        }
        }
        xhttp.send();
        };
        //  exam2023.php
        <?php
          $v1 = $_GET['v1'];
          $fac=1;
          for ($i=2; $i <=$v1 ; $i++) {
            $fac=$fac*$i;
          }
          echo $fac;
        ?>

  </script>
```