Correction exercice 2 TD 2:

```
type monome = float * int

let rec somme_poly (p1: monome array) (p2: monome array) :
monome array =
  let  rec   somme_aux p1 p2 result =
    match p1, p2 with
    | [||], p2-> Array.append result p2
    | p1, [||] -> Array.append result p1
    | _ ->
          let (c1, d1), t1 = p1.(0), Array.sub p1 1 (Array.length p1 - 1) in
          let (c2, d2), t2 = p2.(0), Array.sub p2 1 (Array.length p2 - 1) in
       if d1 > d2 then
        somme_aux t1 p2 (Array.append result [| (c1, d1) |])
       else if d1 < d2  then
        somme_aux  p1 t2  (Array.append result [| (c2, d2) |])
       else  (* d1 = d2 *)
        let sum = c1 +. c2  in
        if sum <> 0.0 then
         somme_aux  t1 t2 (Array.append result [| (sum, d1) |])
        else
         somme_aux t1 t2 result in
  let result = somme_aux  p1  p2 [||]  in
  result  ;;
  let poly1 : monome array = [|(2.0, 2); (1.0, 1); (3.0, 0)|];;
```

```
let poly2 : monome array = [|(3.0, 3); (-1.0, 2); (2.0, 1)|];;
let resultat = somme_poly poly1 poly2;;
```