

**Solución**  
**1<sup>er</sup> Parcial - Setiembre de 2010 - 2<sup>a</sup> parte**

<b>Problema 1</b>	13 (4, 4, 5) ptos
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Se desean realizar diferentes cálculos con un vector de números reales. Para ello, se pide:

a)

```
function res = parteA( v )
suma = 0;
cant = 0;
for i = 1:length(v)
    if( v(i) >= 0 )
        suma = suma + v(i);
        cant = cant + 1;
    end
end

if cant == 0
    res = 0;
else
    res = suma / cant;
end
```

b)

```
function [resPosPar, resPosImp] = parteB( v )
sumaPosPar = 0;
cantPosPar = 0;
sumaPosImp = 0;
cantPosImp = 0;
for i = 1:length(v)
    if( v(i) >= 0 )
        if mod(i,2)
            sumaPosImp = sumaPosImp + v(i);
            cantPosImp = cantPosImp + 1;
        else
            sumaPosPar = sumaPosPar + v(i);
            cantPosPar = cantPosPar + 1;
        end
    end
end

if cantPosPar == 0
    resPosPar = 0;
else
    resPosPar = sumaPosPar / cantPosPar;
end

if cantPosImp == 0
    resPosImp = 0;
else
    resPosImp = sumaPosImp / cantPosImp;
end
```

c)

```
function [cant, suma] = parteC( v )
suma = 0;
cant = 0;
i = 1;

while (cant < 10) & (i <= length(v))
    if ~mod(v(i),2)
        suma = suma + v(i);
        cant = cant + 1;
    end
    i = i + 1;
end
```

<b>Problema 2</b>	8 pts	
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```
function pos=verificarRegistro(inicial, debe, haber, saldo)
pos = 0;
n = length(debe);
saldo_calculado = inicial;
i = 1;
while i <= n & pos == 0
    saldo_calculado = saldo_calculado - debe(i);
    saldo_calculado = saldo_calculado + haber(i);
    if saldo_calculado ~= saldo(i)
        pos = i;
    end
    i = i + 1;
end
```

<b>Problema 3</b>	9 pts	
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```
function C = mulMatRec(A,B,min, max)
[m,n] = size(A);
[n,p] = size(B);
C = zeros(m,p);

for i = 1:m
    for j = 1:p
        for k = 1:n
            C(i,j) = C(i,j) + (A(i,k)* B(k,j));
        end
        if( C(i,j) > max)
            C(i,j) = max;
        else
            if( C(i,j) < min)
                C(i,j) = min;
            end
        end
    end
end
end
```