

1^{er} Parcial – 7 de octubre de 2017

Problema 1	5 (2,3) ptos	
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a)

$$x = 1$$

b)

i. $j = 11$

ii. i es indefinido

Problema 2	12 (1,1,5, 5) ptos	
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a)

1000001000001

b)

25

c)

```
function bin=OctalABin(oct)
```

```
tam = length(oct);
```

```
bin = [];
```

```
for i=tam:-1:1
```

```
    n = oct(i);
```

```
    size = 3;
```

```
    while n>0
```

```
        digito = mod(n,2);
```

```
        n = floor(n/2);
```

```
        bin = [digito, bin];
```

```
        size = size - 1;
```

```
    end
```

```
    if i > 1
```

```
        for j=1:size
```

```
            bin = [0, bin];
```

```
        end
```

```
    end
```

```
end
```

```
end
```

d)

```
function oct = BinAOct(bin)
```

```
largoBin=length(bin);
```

```
saltos = ceil(largoBin / 3);
```

```
ceros_delanteros = mod(largoBin, 3);
```

```
if ceros_delanteros == 1
```

```
    bin = [0 0 bin];
```

```
elseif ceros_delanteros == 2
```

```
    bin = [0 bin];
```

```
end
```

```
oct = [];
```

```
for i = 1:saltos
```

```
    oct= [oct bin(3*i-2)*4 + bin(3*i-1)*2 + bin(3*i)];
```

```
end
```

```
end
```

Problema 3	12 (7, 5) ptos	
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a)

```
function y=EsSumaMayor(v,Smin)
if (Smin < 0)
    y = 1;
else
    largo=length(v);
    y=0;
    S=0;
    k=1;
    while k<=largo & y==0
        S=S+v(k);
        if S>Smin
            y=1;
        end
        k=k+1;
    end
end
end
```

b)

```
function res=Todas(v, elem)
res= [];
for i = 1:length(v)
    if v(i) == elem
        res = [res i];
    end
end
end
```

Problema 4	5 ptos	
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```
Function res = EstaEnInt(M, v)
res = [];
for i = 1: length(v)
    if M(i, 1) < v(i) && v(i) < M(i, 2)
        res = [res; 1];
    else
        res = [res; 0];
    end
end
end
end
```

Problema 5	6 ptos	
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```
function res = TerminaCon(a, b)
n = length(a);
m = length(b);
if m > n
    res = 0;
else % m <= n
    i = n;
    j = m;
    res = 1;
    while i >= 1 && j >= 1 && res
        res = a(i) == b(j);
        i = i- 1;
        j = j- 1;
    end
end
end
```

Otra forma:

```
function res = TerminaCon(a, b)
n = length(a);
m = length(b);
i = n;
j = m;
res = n >= m;
while i >= 1 && j >= 1 && res
    res = a(i) == b(j);
    i = i- 1;
    j = j- 1;
end
end
```