

Problema 1

a)

```
function s = and(x,y)
    s = 0
    if (x)          % x == 1
        if(y)      % y == 1
            s = 1;
        end
    end
end
```

```
function s = not(x)
    s = 1
    if (x)          % x == 1
        s = 0;
    end
end
```

b)

- I) $(a > b) \text{ and } (c \leq d) \text{ and } (\text{not } (d == a))$
- II) $(a > b) \text{ and } ((\text{not}(c \leq d)) \text{ or } (d == a))$
- III) $\text{not } (a > b)$
- IV) $(1 == 0)$ o no sucede.

Problema 2

- a) 10001
- b) 53
- c) 100000001

Problema 3

a)

```
function s = problema3a(v)
    s = 0
    for i=1:length(v)
        if( mod(v(i),7) ~= 0 )
            s = s + v(i);
        end
    end
end
```

b)

```
function s = problema3b(v)
    s = 0;
    i = 1;
    largo = length(v);
    while ( (i <= largo) && (s <= 60) )
        if( mod(v(i),7) ~= 0 )
            s = s + v(i);
        end
        i = i + 1;
    end
end
```

end

c)

```
function s = problema3c(v,a,b)
    s = 0;
    i = 1;
    largo = length(v);
    while ( (i <= largo) && (s <= b) )
        if( mod(v(i),a) ~= 0 )
            s = s + v(i);
        end
        i = i + 1;
    end
end
```

Problema 4

a)

```
function [m,p] = problema4a(v)
    m = v(1);
    p = 1;
    for i = 2:length(v)
        if ( m > v(i) )
            m = v(i);
            p = i;
        end
    end
end
```

b)

```
function v = problema4b(v)
    [m,p] = problema4a(v);
    v(p) = v(1);
    v(1) = m;
end
```

c)

```
function v = problema4c(v)
    largo = length(v);
    for i = 1:largo - 1
        v(i:largo) = problema4b(v(i:largo));
    end
end
```