# Busca Binária

V =  10 20 30 40 50 60 70 80    X=60
     0  1  2  3  4  5  6  7

V =  10 20 30 40 50 60 70 80    X=10
     0  1  2  3  4  5  6  7

V =  10 20 30 40 50 60 70 80    X=65
     0  1  2  3  4  5  6  7

$\Theta(\lg n)$

```
INT BUSCA_BIN(INT *V,
    INT E, INT d, INT X){
    INT M;
    IF(E <= d){
        M=(E+d)/2;
        IF(V[M]==X)
            RETURN M;
        ELSE{
            IF(X > V[M]){
                RETURN BUSCA_BIN(V, M+1, d, X);
            }
            ELSE{
                RETURN BUSCA_BIN(V, E, M-1, X);
            }
        }
    }
    RETURN -1;
}
```