

Απαντήσεις - Προγραμματισμός Γ'ΕΠΑΛ

A1] α) Σ β) Λ γ) Λ δ) Λ ε) Σ

A2] 1. β 2) στ 3. δ 4. γ 5. α.

ΘΕΜΑ Β:

B1] def trimα(s1):

 s = ""

 for x in s1:

 if x != 'A' and x != 'a':
 s = s + x

 s1 = s

 return s1

B2] α) $\left. \begin{array}{l} \text{first} = 0 \\ \text{last} = 9 \end{array} \right\} \text{mid} = (0+9)/2 = 9/2 = 4$

• $A[\text{mid}] == \text{key}$

 (73) == 85 (F)

• $73 < 85$

$\text{last} = \text{mid} - 1 = 4 - 1 = 3$

αρα $\left. \begin{array}{l} \text{first} = 0 \\ \text{last} = 3 \end{array} \right\} \text{mid} = (0+3)/2 = 3/2 = 1$

• $A[\text{mid}] == \text{key}$

 (181) == 85 (F)

• $A[\text{mid}] > \text{key}$

$181 > 85$

$\text{first} = \text{mid} + 1 = 1 + 1 = 2$

αρα $\left. \begin{array}{l} \text{first} = 2 \\ \text{last} = 3 \end{array} \right\} \text{mid} = (2+3)/2 = 5/2 = 2$

$$A[mid] == key$$

$$A[2] == 85$$

$$(145) == 85 \quad (F)$$

$$A[mid] > key$$

$$145 > 85$$

$$first = mid + 1 = 2 + 1 = 3$$

$$\text{όρα } first = 3, last = 3$$

$$mid = (3 + 3) / 2 = 6 / 2 = 3$$

$$A[mid] == key$$

$$(98) == 85 \quad (F)$$

$$98 > 85 \quad (T)$$

$$first = mid + 1 = 3 + 1 = 4$$

$$\text{όρα } first = 4, last = 3$$

α) Οα συγκριθούν: 7 3, 181, 145, 98.

$$b) \left. \begin{array}{l} first = 0 \\ last = 9 \end{array} \right\} mid = (0 + 9) / 2 = 9 / 2 = 4$$

$$A[mid] == key$$

$$A[4] == 12$$

$$(73) == 12 \quad (F)$$

$$A[4] > 12$$

$$73 > 12$$

$$first = mid + 1 = 4 + 1 = 5$$

$$\text{όρα } first = 5, last = 9 \Rightarrow mid = (5 + 9) / 2 = 14 / 2 = 7$$

$$A[mid] == key$$

$$A[7] == 12$$

$$(29) == 12$$

$$29 > 12$$

$$\text{first} = \text{mid} + 1 = 7 + 1 = 8$$

$$\text{όρα } \text{first} = 8, \text{last} = 9$$

$$\text{mid} = (8 + 9) / 2 = 17 / 2 = 8$$

$$A[\text{mid}] == \text{key}$$

$$A[8] == 12$$

$$(12) == 12 \quad (\text{T})$$

$$b) \quad 73, 29, 12$$

B3]

$$i = 0$$

while $i < 10$:

$$j = 10$$

while $j > -1$

 print $i * j$

$$j = j - 1$$

$$i = i + 1$$

ΔΕΜΝ Γ

```
mx = -100
```

```
gpl = 0
```

```
p12 = 0
```

```
on = raw_input("Δώδε όνομα:")
```

```
while on != "ΤΕΛΟΣ":
```

```
    p1 = 0
```

```
    S = 0
```

```
    for i in range(10):
```

```
        v = input("Δώδε βαθμό:")
```

```
        while v < 1 or v > 20:
```

```
            print "Λάθος"
```

```
            v = input("Δώδε βαθμό:")
```

```
        S = S + v
```

```
        if v >= 12:
```

```
            p1 = p1 + 1
```

```
    mo = S / 10.0
```

```
    print mo
```

```
    if mo > 15 and p1 == 10:
```

```
        print "ΠΡΟΚΡΙΝΕΤΑΙ"
```

```
        p12 = p12 + 1
```

```
    gpl = gpl + 1
```

```
    if mo > mx:
```

```
        mx = mo
```

```
    on = raw_input("Δώδε όνομα:")
```

```
if gpl != 0:
```

```
    pososto = p12 / float(gpl)
```

```
    print pososto
```

```
print mx
```


ΘΕΜΑ Δ

```

fp = open("branch.txt", "r")
ON = []
for line in fp:
    ON.append(line)
N = len(ON)
S_POSO = []
for i in range(N):
    sum = 0
    for i in range(30):
        eis = input("Δώσε εισόδημα:")
        sum = sum + eis
    S_POSO.append(sum)

```

```

S2 = 0
for i in range(N):
    S2 = S2 + S_POSO[i]
mo = S2 / float(N)
print mo
pl = 0
for i in range(N):
    if S_POSO[i] > mo:
        pl = pl + 1
print pl

```

```

for i in range(N-1):
    for j in range(N-1, i, -1):
        if S_POSO[j] > S_POSO[j-1]:
            S_POSO[j], S_POSO[j-1] = S_POSO[j-1], S_POSO[j]
            ON[j], ON[j-1] = ON[j-1], ON[j]
        elif S_POSO[j] == S_POSO[j-1] and ON[j] < ON[j-1]:
            ON[j], ON[j-1] = ON[j-1], ON[j]

```