

تمرین های فصل 4

شایسته گیوه ای

1-درست و غلط

2-اصطلاح و زبان بولین از نام فردی به نام
(جورج بول) ریاضیدان بریتانیایی گرفته شده است .
وبعد از او این زبان مورد استفاده ی جهانی قرار
گرفته شده است.

3- (1)

4- (0)

5-yes.it is false .

6-

A :x == 3 **true**

B :x < y **true**

C :x >= y **false**

D : $x \leq y$ true

E : $x \neq y - 2$ false

F : $x < 10$ true

G : $x \geq 0$ and $x < 1$ true

H : $x < 0$ and $x < 10$ false

I : $x \geq 0$ and $x < 2$ false

J : $x < 0$ or $x < 10$ true

K : $x > 0$ or $x < 10$ true

M : $x < 0$ or $x > 10$ false

7-

(a) b3 true

(b) b4 false

(c) not b1 false

(d) not b2 true

(e) not b3	false
(f)not b4	true
(g)b1 and b2	false
(h)b1 or b2	true
(i)b1and b3	true
(j)b1 or b3	true
(k)b1 and b4	false
(l)b1 or b4	true
(m)b2 and b3	false
(n)b2 or b3	true
(o)b1 and b2 or b3	true
(p)b1 or b2 and b3	true
(q)b1 and b2 and b3	false
(r) b1 or b2 or b3	true

(s)not b1 and b2 and b3	false
(t)not b1 or b2 or b3	true
(u)not (b1 and b2 and b3)	true
(v)not (b1 or b2 or b3)	false
(w)not b1 and not b2 and not b3	false
(x)not b1 or not b2 or not b3	true
(y) not (not b1 and not b2 and not b3)	true
(z)not (not b1 or not b2 or not b3)	false

8-(a)not (x==2)	$x \neq 2$
(b)x<2 or x==2	$x \leq 2$
(c) not (x<y)	$x \geq y$
(d)not (x<=y)	$x > y$
(e)x<10 and x>20	$x < 10 \text{ or } x > 20$

(f) $x > 10$ or $x < 20$ $10 < x < 20$

(g) $x \neq 0$ $\text{not } (x == 0)$

(h) $x == 0$ $x = 0$

9-

(A) $x \neq y$

(b) $x \leq y$

(c) $x \geq y$

(d) $x < y$

(e) $x > y$

(f) $x == y$

(g) $x == y$

(h) $x \neq y$ or $x \geq 2$

(l) $x \neq y$ and $x \leq 2$

(j) $x==y$

10-the simplest tautology is “a” statement is true if and only if it is true.

11-a=not athis statement is false.

12- <the code>

```
#start
```

```
b=int(input("inter a number between 1,100"))
```

```
If 1<number<100:
```

```
    Print ("ok")
```

```
#else :
```

```
#    pass
```

13- <the cude>

```
#start
```

```
b=int(input("enter a number between 1 , 100"))
```

```
If 1<numner<100:
```

Print ("ok")

Else:

Print("out of range ")

14- < the code>

```
print("Do you like to learn days in Spanish? ")
```

```
print("*Type end for stop*")
```

```
while (True):
```

```
    day = input("enter a day completely")
```

```
    day = day.lower()
```

```
# Saturady
```

```
    if day == "saturday" or 'sat' or 'satur' :
```

```
        print("In Spanish it is ' Sábado ' ")
```

```
#Sunday
```

```
    elif day == 'sunday' or 'sun' or 'sund' :
```

```
        print("In Spanish it is ' Domingo ' ")
```

```
#Monday
```

```
elif day == 'monday' or 'mon' or 'mond':
```

```
    print("In Spanish it is ' Lunes ' ")
```

```
#Tuesday
```

```
elif day == "tuesday" or 'tues' or 'tu':
```

```
    print("In Spanish it is ' Martes ' ")
```

```
# Wednesday
```

```
elif day == 'wednesday' or 'wedn' or 'wednes' :
```

```
    print("In Spanish it is ' Miércoles ' ")
```

```
# Thursday
```

```
elif day == "thursday" or 'thurs' or 'thur' :
```

```
    print(" In Spanish it is ' Jueves ' ")
```

```
# Friday
```

```
elif day == 'friday' or 'fri' or 'f' :
```

```
    print(" In Spanish it is ' Viernes ' ")
```

```
# End cheking
```

```
elif day == 'end' or 'e' or 'en' :
```

```
    print("Have a nice time")
```


Break

else :

print("Incorrect input i don't understand ")

15-

(a) $i = 5, j = 7, k = 3$

(b) $i = 5, j = 3, k = 7$

(c) $i = 3, j = 5, k = 7$

(d) $i = 3, j = 7, k = 5$

(e) $i = 5, j = 3, k = 7$

(f) $i = 7, j = 5, k = 3$

16-

(a) 3 wow 3

(b) 21 whoa 21

(c) 5 5

(d) 17 27

(e) -5 wow -5

17-

(a) **** && *

(b) *** && *

(c) *** && *

(d) ** && *

(e) * && *

(f) nothing

1. In program (1) first start to check if $n < 1000$ (if this is true execute block of the if else pass to the next if)

2. But in program (2) After we check if $n < 1000$ (if this is true must execute the if $n < 1000$ block and down but if it was not true check the elif)

18- <the code>

```
n1 = int(input("y1 "))
```

```
max = n1
```

```
min = n1
```

```
n2 = int(input("y 2 "))
n3 = int(input("y3 "))
n4 = int(input("y 4 "))
n5 = int(input("y 5 "))
if n2 < min :
    min = n2
if n3 < min :
    min = n3
if n4 < min :
    min = n4
if n5 < min :
    min = n5
print("Min = ",min)
# Maximum check
if n2 > max :
    max = n2
if n3 > max :
```

```
        max = n3
if n4 > max :
    max = n4
if n5 > max :
    max = n5
print("Max = ",max)
```

19- <the cude>

```
n1 = int(input("y 1 "))
n2 = int(input("y2 "))
n3 = int(input("y 3 "))
n4 = int(input("y 4 "))
n5 = int(input("y 5 "))
    duplicated = 0
if n1 == n2 :
    duplicated += 1
if n1 == n3 :
```

duplicated += 1

if n1 == n4 :

duplicated += 1

if n1 == n5 :

duplicated += 1

if n2 == n3 :

duplicated += 1

if n2 == n4 :

duplicated += 1

if n2 == n5 :

duplicated += 1

if n3 == n4 :

duplicated += 1

if n3 == n5 :

duplicated += 1

if n4 == n5 :

duplicated += 1

```
if duplicated != 0 :  
    print(" DUPLICATES ")  
else :  
    print("ALL UNIQUE")
```