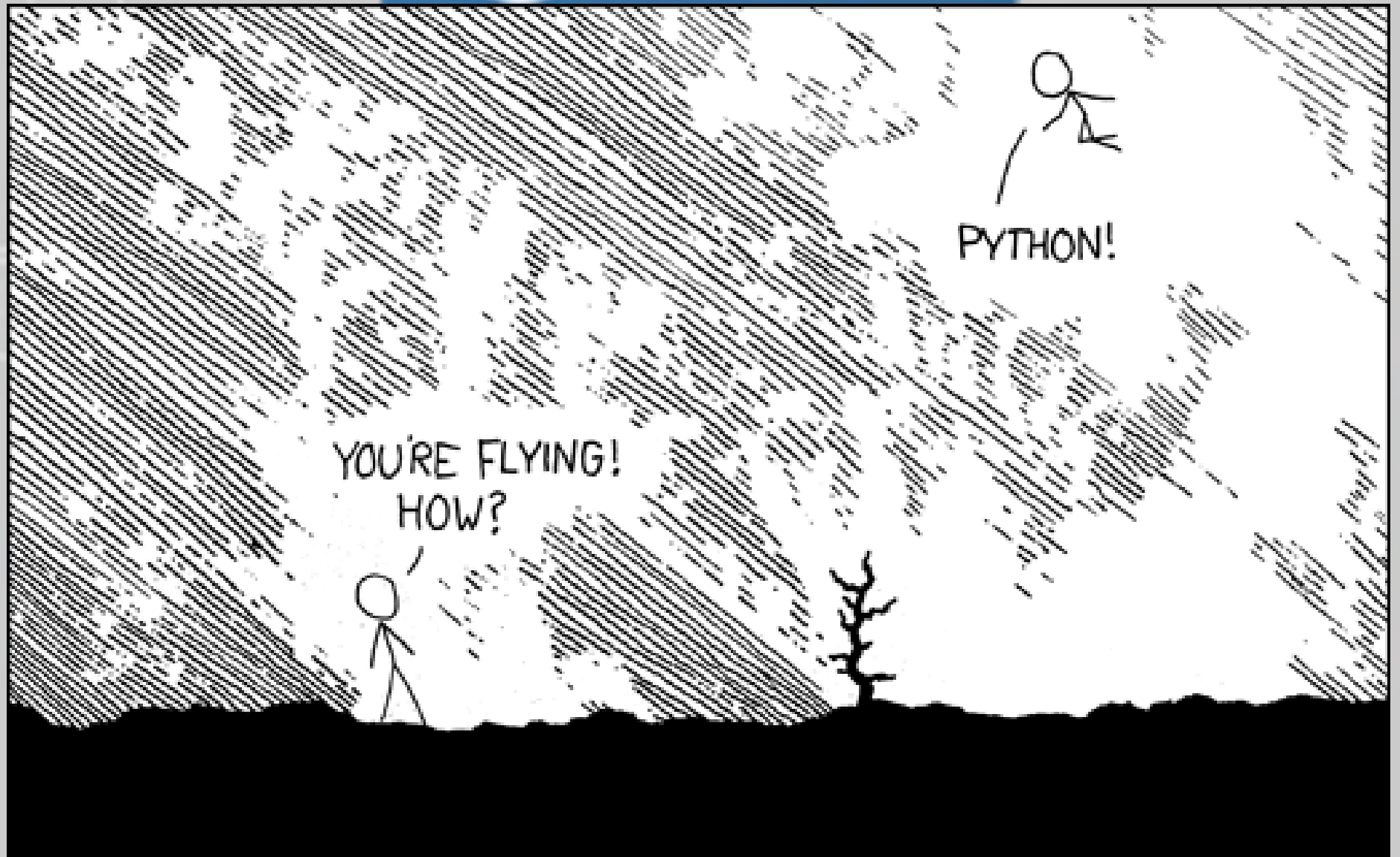




python™

UNIVERSIDAD CENTROAMERICANA "JOSÉ SIMEÓN CAÑAS"

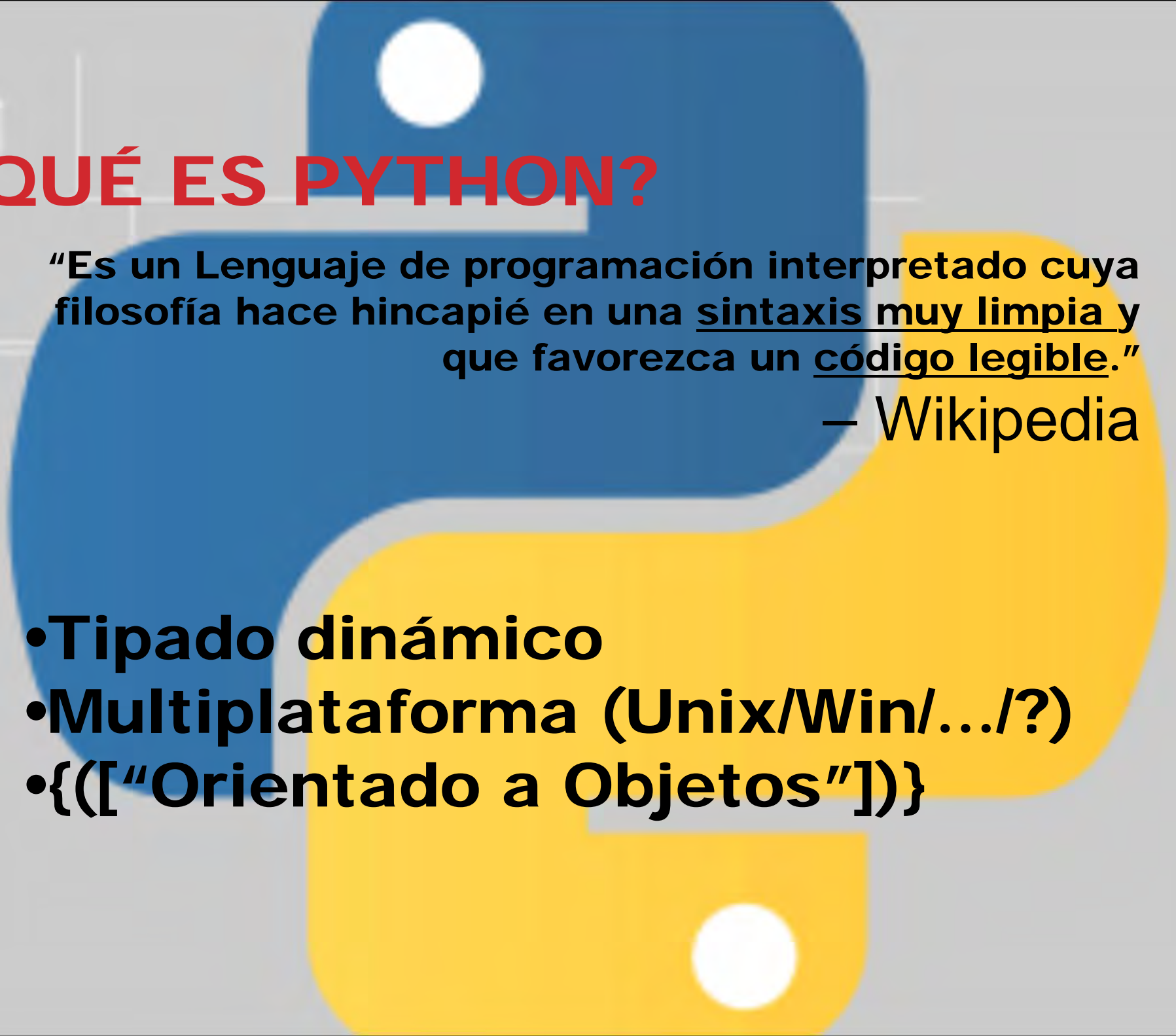
UCA 20
CONIA12



QUÉ ES PYTHON?

“Es un Lenguaje de programación interpretado cuya filosofía hace hincapié en una sintaxis muy limpia y que favorezca un código legible.”

– Wikipedia

- Tipado dinámico
- Multiplataforma (Unix/Win/.../?)
- {(["Orientado a Objetos"])}
The background of the slide features a large, stylized Python logo. The logo is composed of two interlocking snakes: a blue one on the left and a yellow one on the right. Each snake has a white circular dot on its head. The logo is centered and occupies most of the slide's background.

UN SALTO DE CABEZA

```
#Abre en modo escritura el archivo "prueba.txt"  
#Escribe hola mundo en el archivo  
#Cierra el archivo
```

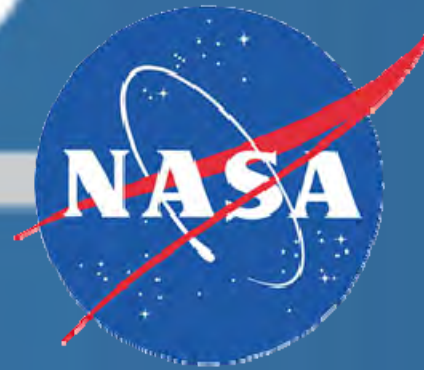
```
f = open('prueba.txt', 'w')  
f.write('hola mundo')  
f.close()
```

```
import urllib2  
html = urllib2.urlopen("http://www.facebook.com").read()  
f = open("face.html", "w")  
f.write(html)  
f.close()
```

FACE.HTML

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE html PUBLIC "-//WAPFORUM//DTD XHTML Mobile 1.0//EN" "http://www.wapforum.org/DTD/xhtml-mobile10.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"><head><title>Te damos la bienvenida a Facebook</title>
<meta name="description" content="Facebook helps you connect and share with the people in your life." />
<meta name="referrer" content="default" id="meta_referrer" /><noscript><meta http-equiv="X-Frame-Options" content="deny" />
</noscript><link id="27YDa" type="text/css" rel="stylesheet" href="http://static.ak.fbcdn.net/rsrc.php/v2/vc/r/l/27YDa.css" />
<link id="1A/k0" type="text/css" rel="stylesheet" href="http://static.ak.fbcdn.net/rsrc.php/v2/vV/r/v0iq4pexQdS.1A/k0.css" />
<link id="OoVcD" type="text/css" rel="stylesheet" href="http://static.ak.fbcdn.net/rsrc.php/v2/v8/r/HqNFeBa9dJ/OoVcD.css" />
<table cellpadding="0" cellspacing="0"><tr><td valign="top"><a href="/home.php?refid=8">Inicio</a></td><td align="center"></td></tr></table><br />
<table cellpadding="0" cellspacing="0"><tr><td align="center"><a href="/r.php?refid=8">Regístrate</a></td></tr></table><br />
<form method="post" id="login_form" action="https://m.facebook.com/login.php?m=m&refsrc=http%3A%2F%2Fwww.facebook.com%2Flogin.php" />
<input type="hidden" name="lsd" value="AVr7CKAj" autocomplete="off" /><input type="hidden" name="charset_test" value="utf-8" />
<input type="hidden" id="ajax" name="ajax" value="0" /><input type="hidden" id="width" name="width" value="0" />
<input type="hidden" id="pxr" name="pxr" value="0" />
<input type="hidden" id="gps" name="gps" value="0" /><input type="hidden" autocomplete="off" name="m_ts" value="m" />
<input type="hidden" autocomplete="off" name="li" value="VAWXUGHtef60-LuOICqbIM8u" /><input type="hidden" autocomplete="off" name="laststage" value="first" />
Correo electrónico o teléfono<br /><input type="text" name="email" value="" /><br />
Contraseña<br /><input autocorrect="off" autocapitalize="off" name="pass" type="password" value="" /><br />
<input type="hidden" autocomplete="off" name="_fb_noscript" value="true" /></noscript></form><br />
<small><a href="/login.php?http&refsrc=http%3A%2F%2Fwww.facebook.com%2Flogin.php" />¿Tienes problemas para entrar en Facebook?</a><br />
<a href="/r.php?refid=8">Regístrate aquí</a></small><br />
<b>Español</b>&nbsp; &nbsp;<a href="/a/language.php?l=en_US&lref=http%3A%2F%2Fm.facebook.com%2F%3Frefsrc%3Dhttp%253A%2F%2Fwww.facebook.com%2Flogin.php" />English (US)</a>&nbsp; &nbsp;<a href="/a/language.php?l=pt_BR&lref=http%3A%2F%2Fm.facebook.com%2F%3Frefsrc%3Dhttp%253A%2F%2Fwww.facebook.com%2Flogin.php" />Português (Brasil)</a>&nbsp; &nbsp;<a href="/language.php?n=http%3A%2F%2Fm.facebook.com%2F%3Frefsrc%3Dhttp%253A%2F%2Fwww.facebook.com%2Flogin.php" />Español</a></small><br />
<input type="hidden" id="m_user_DEPRECATED" value="0" /></body></html>
```

YAHOO!



BitTorrent™



Google™



Dropbox

BATTLEFIELD

facebook.

You Tube

DETALLES SOBRE PYTHON

- Guido van Rossum
(**BDFL**)



- Monty Python



- Version actual 3.2 / Version Standard 2.x

FILOSOFIA PYTHON

- Bello es mejor que feo.
- Explícito es mejor que implícito.
- Simple es mejor que complejo.
- Complejo es mejor que complicado.
- Plano es mejor que anidado.
- Disperso es mejor que denso.
- La legibilidad cuenta.

FILOSOFIA PYTHON

- Los casos especiales no son tan especiales como para quebrantar las reglas.
- Aunque lo práctico gana a la pureza.
- Los errores nunca deberían dejarse pasar silenciosamente.
- A menos que hayan sido silenciados explícitamente.

FILOSOFIA PYTHON

- Frente a la ambigüedad, rechaza la tentación de adivinar.
- Debería haber una -y preferiblemente sólo una- manera obvia de hacerlo.
- Aunque esa manera puede no ser obvia al principio a menos que usted sea holandés.
- Ahora es mejor que nunca.

FILOSOFIA PYTHON

- Aunque *nunca* es a menudo mejor que *ya mismo*.
- Si la implementación es difícil de explicar, es una mala idea.
- Si la implementación es fácil de explicar, puede que sea una buena idea.
- Los espacios de nombres (*namespaces*) son una gran idea ¡Hagamos más de esas cosas!

BATERIAS INCLUIDAS

Las librerías en Python los llamamos Modulos.

Los módulos estándar son muy poderosos por lo que se puede llevar a cabo programas sencillos sin instalar librerías adicionales.

REGRESANDO AL CODIGO ANTERIOR



```
import urllib2
html = urllib2.urlopen("http://www.facebook.com").read()
f = open("face.html", "w")
f.write(html)
f.close()
```

ALGUNOS TIPOS DE VARIABLES

```
x="Hola"  
print x  
x='Hola'  
print x  
x="""Hola  
    mundo"""  
print x
```

```
x=0  
print x  
x=0.0  
print x
```

```
x=[0,1,5,3,5,6,7]  
print x[1]
```

```
x=(23,34)  
print x[0]
```

```
x={"Jaime":23,"Carlos":22,"Diana":24}  
print x["Diana"]
```

OPERADORES

```
x=23
y=34
str1 = 'hola'
str2 = "mundo"

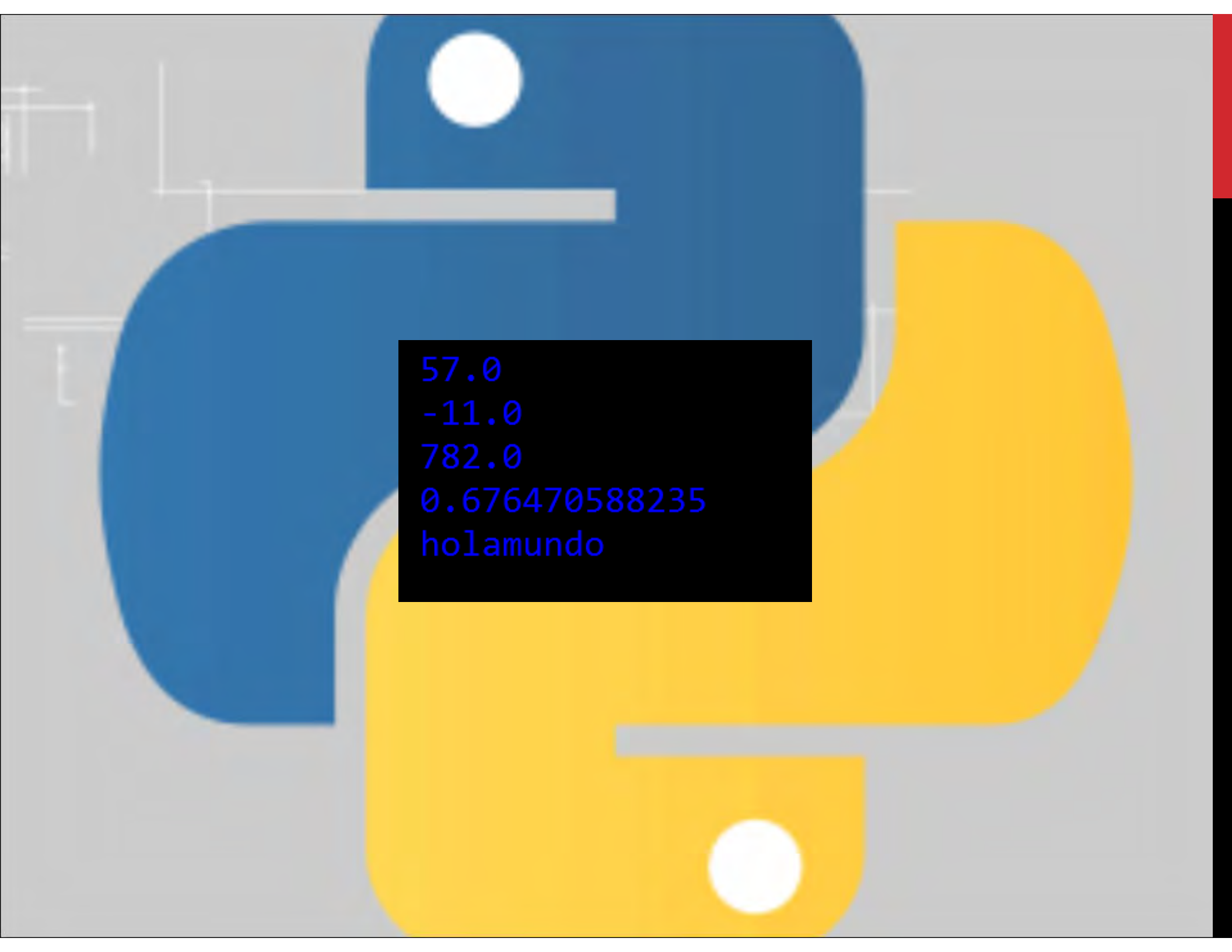
print x+y
print x-y
print x*y
print x/y
print str1 + str2
print str1 + 23
```

```
57  
-11  
782  
0  
holamundo
```

```
Traceback (most recent call  
  File "C:\Python27\test.p  
    print str1 + 23  
TypeError: cannot concater
```

```
x=23.0  
y=34.0  
str1 = 'hola'  
str2 = "mundo"  
  
print x+y  
print x-y  
print x*y  
print x/y  
print str1 + str2
```

```
le>  
bjects
```


The image features the Python logo, which consists of two interlocking snakes, one blue and one yellow, set against a light gray background. A black rectangular box is overlaid on the center of the logo, containing a list of Python code elements. The elements are: a float value '57.0', a negative float value '-11.0', an integer value '782.0', a long floating-point number '0.676470588235', and a string 'holamundo'.

```
57.0  
-11.0  
782.0  
0.676470588235  
holamundo
```

OPERADORES DE CONTROL

```
f = 1
if f < 0:
    print 'f es menor que 0'
else:
    print 'no es menor que 0'

while (f < 10):
    print 'f es igual a :'+str(f)
    f+=1
```

no es menor que 0
f es igual a 1
f es igual a 2
f es igual a 3
f es igual a 4
f es igual a 5
f es igual a 6
f es igual a 7
f es igual a 8
f es igual a 9

FUNCIONES

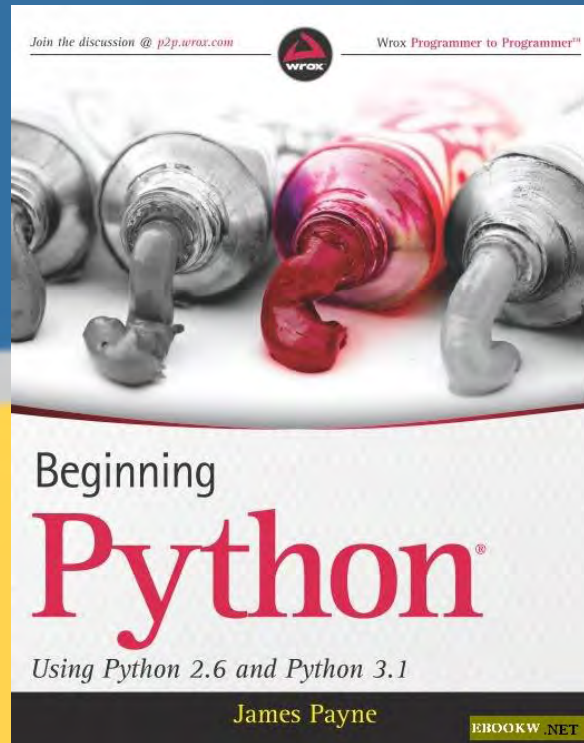
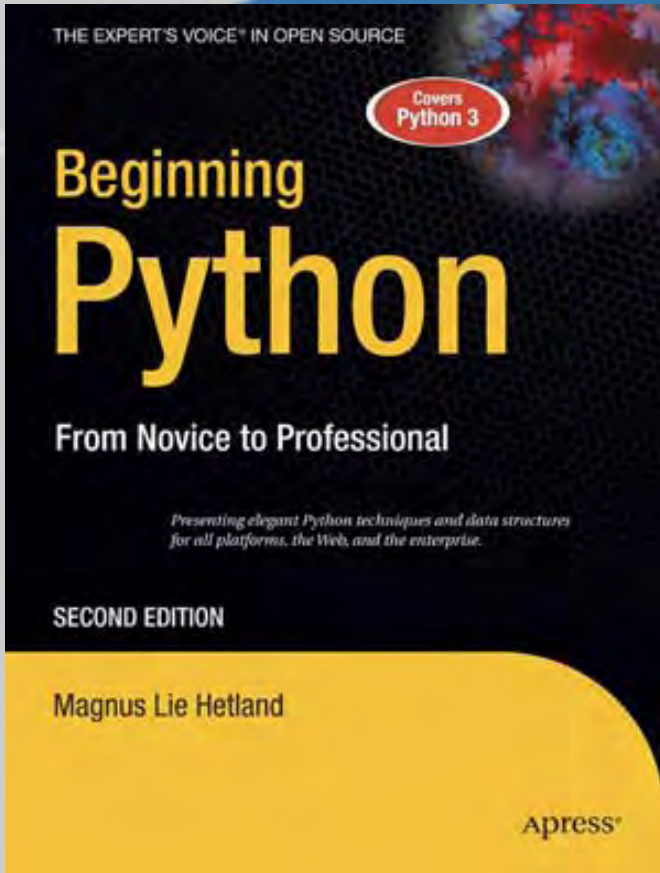
```
def suma(x=0,y=0):  
    return x+y  
  
print suma()  
print suma(4,3)  
print suma('hola','mundo')
```

```
0  
7  
holamundo
```

CLASSES

```
class Estudiante():
    def __init__(self, nombre=''):
        self.nombre = nombre
    def GetNombre(self):
        return self.nombre

E = Estudiante('Jacob')
print E.GetNombre()
```



The background features a light gray field with faint white grid lines. A large blue shape, resembling a stylized letter 'A' or a bracket, is positioned on the left. A large yellow shape, resembling a stylized letter 'P' or a bracket, is on the right. A white circle is located at the top of the blue shape, and another white circle is at the bottom of the yellow shape. The text 'TRABAJOS Y PROYECTOS' is centered in a black, sans-serif font.

TRABAJOS Y PROYECTOS

	A	B	C	D	E	
1	Event	Dates	Place	State	Entertainment	# of Ex
2	Eagle Mountain Arts in the Park	06/01 to 06/01 2011	Nolan Park - Eagle Mountain	UT	1 stg -I,N,R,L (music: SW RK BL CL JZ RA V	
3	Tampa Music Conference	06/01 to 06/03 2011	Grand Hyatt Tampa Bay - Tampa	FL	1 stg -N,R,L (music: RK RG BL RT CR TC RP	
4	Steamboat Days Festival	06/01 to 06/04 2011	Downtown - Des Arc	AR	1 stg -N,R,L (music: RK RG CY GP BG Vari	
5	BayFest Celebration	06/01 to 06/04 2011	Downtown - Smith Park - Bay Springs	MS	1 stg -R,L (music: Variety)	
6	Dunkirk Glass Days Festival	06/01 to 06/04 2011	Dunkirk City Park - Dunkirk	IN	1 stg -N,R,L (music: RK CY RB)	
7	Erie's Wild Rib Cook Off & Music Festival	06/01 to 06/04 2011	Perry Square Park - Erie	PA	2 stg -R,L (music: SW RK RG BL BC FK CY C	
8	English Reunion Festival	06/01 to 06/04 2011	Wm. H. English Park - English	IN	1 stg -R,L (music: Variety)	
9	Scott Joplin Ragtime Festival	06/01 to 06/05 2011	Various Venues Downtown - Sedalia	MO	6 stg -N,R,L (music: RA OT)	
10	Farmington Country Days	06/01 to 06/05 2011	Downtown - Farmington	MO	2 stg -N,R,L (music: SW RK CR CY GP BG T	
11	Ottawa International Children's Festival de	06/01 to 06/05 2011	Lebreton Flats - Ottawa	ON	5 stg -I,N,R,L (music: Variety)	
12	Festival Mutek	06/01 to 06/05 2011	Downtown - Montreal	QC	4 stg -I,N,R,L (music: TC EX Variety)	
13	Beef Empire Days	06/01 to 06/12 2011	Various Locations - Garden City	KS	1 stg -R (music: CY)	
14	Westtown Farmer's Market	06/01 to 06/29 2011	Zeidler Union Square - Milwaukee	WI	1 stg -L (music: SW RK RG BL BC FK CY JZ	
15	Whittier Family Festival & Farmers' Market	06/01 to 06/29 2011	Greenleaf and Bailey Avenues - Whittier	CA	1 stg -L (music: Variety)	
16	Sunset Celebration	06/01 to 06/30 2011	Mallory Dock Square - Key West	FL	0 w/Roving Performers -L (music: Variet	
17	Sunsets at Pier 60	06/01 to 06/30 2011	Pier 60 - Clearwater	FL	1 stg -R,L (music: RG BC TF Variety)	
18	Reedy River Nighttime Concert Series	06/01 to 08/31 2011	Peace Center Amphitheatre - Greenville	SC	1 stg -R,L (music: RK RG BL RT BC FK CY JZ	
19	Alive After Five	06/01 to 09/28 2011	Grove Plaza - Boise	ID	1 stg -N,R,L (music: RK RG BL RT BC FK CY	
20	Keystone Catfish Festival	06/02 to 06/02 2011	Feyodi Park - Cleveland	OK	1 stg -R (music: SW RK BL CR FK CY JZ RA	
21	Wagoner Summerfest	06/02 to 06/04 2011	Blake Park - Wagoner	OK	1 stg -L (music: Variety)	
22	Love County Frontier Days	06/02 to 06/04 2011	Courthouse Lawn - Marietta	OK	1 stg -L (music: Variety)	
23	Dare Day Festival	06/02 to 06/04 2011	Downtown/waterfront - Manteo	NC	2 stg -N,R,L (music: CR CY GP BG)	
24	Capital Expo Festival	06/02 to 06/04 2011	Capital Plaza Complex - Frankfort	KY	2 stg -R,L (music: RK FK CY JZ)	
25	Main Street Lawrenceburg Heritage Festiva	06/02 to 06/04 2011	Public Square - Lawrenceburg	TN	1 stg -R,L (music: Variety)	
26	Clinch River Days	06/02 to 06/04 2011	A.R. Matthews Park on Clinch River - Saint Paul	VA	2 stg -N,R,L (music: BC CR CY CL GP OT TC	
27	Appalachian Uprising	06/02 to 06/04 2011	Eden Valley Farm - Scottown	OH	1 stg -N,R,L (music: CY BG)	
28	Memphis Italian Festival	06/02 to 06/04 2011	Marquette Park - Memphis	TN	2 stg -N,R,L (music: RK CY Variety)	
29	Graves Mountain Festival of Music	06/02 to 06/04 2011	Graves Mountain Lodge - Syria	VA	1 stg -N (music: BG)	
30	John Hartford Memorial Festival	06/02 to 06/04 2011	Bill Monroe Music Park & Campground - Morgantow	IN	1 stg -N,R,L (music: FK BG)	
31	Fontana Days Festival	06/02 to 06/05 2011	Veterans Park - Fontana	CA	1 stg -R,L (music: Variety)	
32	Western Maryland Blues Fest	06/02 to 06/05 2011	Downtown & City Park - Hagerstown	MD	2 stg -N,R,L (music: BL)	
33	Miami/bahamas Goombay Festival in Cocol	06/02 to 06/05 2011	Coconut Grove - Miami	FL	2 stg -I,N,R,L (music: RG BL CR JZ GP RP R	
34	Beaumont Cherry Festival	06/02 to 06/05 2011	Stewart Park - Beaumont	CA	2 stg -N,R,L (music: Variety)	
35	Kirksville Bluegrass Festival	06/02 to 06/05 2011	NEMO Fairgrounds - Kirksville	MO	1 stg -R,L (music: BG)	
36	My Waterloo Days Festival	06/02 to 06/05 2011	River Loop Expo Plaza - Waterloo	IA	1 stg -R,L (music: Variety)	
37	Ithaca Festival	06/02 to 06/05 2011	Downtown - Ithaca	NY	1 stg -L (music: Variety)	
38	Lebanon Strawberry Festival	06/02 to 06/05 2011	Cheadle Lake Regional Park - Lebanon	OR	1 stg -L (music: Variety)	
39	Coatesville Strawberry Festival	06/02 to 06/05 2011	Brandywine Hospital - Coatesville	PA	2 stg -L (music: RK CY TF Variety)	
40	Herndon Festival	06/02 to 06/05 2011	Downtown - Herndon	VA	3 stg -N,R,L (music: SW RK RG BC FK CY JZ	
41	Saint Paul Seafood Festival	06/02 to 06/05 2011	Saint Paul Church Grounds - Pass Christian	MS	1 stg -L (music: Variety)	

	City	State	Zip Code	Telephone	URL
s Hwy	Wasilla	AK	99654	(907) 352-6711	http://adn.com
ilope Ave	Anchorage	AK	99518	(907) 561-4772	http://alaskajournal.com
ngle River Loop Rd	Eagle River	AK	99577	(907) 694-2727	http://alaskastar.com
ve	Anchorage	AK	99501	(907) 561-7737	http://anchoragepress.com
clin St	Juneau	AK	99801	(907) 789-4144	http://capweek.com
rest Dr Ste C	Bethel	AK	99559	(907) 543-4113	http://deltadiscovery.com
man St	Fairbanks	AK	99701	(907) 456-6661	http://newsminer.com
way St	Skagway	AK	99840	(907) 983-2354	http://skagwaynews.com
e SW	Cullman	AL	35055	(256) 737-9770	http://alcourtreporter.com
way Ave	Sylacauga	AL	35150	(256) 249-4311	http://annistonstar.com
ve N	Birmingham	AL	35203	(205) 325-2237	http://bhamnews.com
ctaw Ave	Gilbertown	AL	36908	(251) 843-6397	http://choctawsun.com
e SE	Cullman	AL	35055	(256) 734-2131	http://cullmantimes.com
ey Ave	Talladega	AL	35160	(256) 362-1000	http://dailyhome.com
way Ave	Sylacauga	AL	35150	(256) 249-4311	http://dailyhome.com
en St	Athens	AL	35611	(256) 232-2720	http://enewscourier.com
ards St	Enterprise	AL	36330	(334) 347-9533	http://eprisenow.com
t	Montgomery	AL	36104	(334) 264-6605	http://gadsdentimes.com
y Road 517	Hanceville	AL	35077	(256) 352-6367	http://misscourtreporter.com
	Monroeville	AL	36460	(251) 575-3282	http://monroejournal.com
st	Prattville	AL	36067	(334) 365-6739	http://montgomeryadvertiser.com
# 102	Opelika	AL	36801	(334) 749-8003	http://opelikaobservernews.com
Downs Rd	Birmingham	AL	35242	(205) 437-1536	http://paisanonewspaper.com



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VENETO_	JP.AICHI	JP.AICHI_	JP.AKITA	JP.AKITA_	JP.AOMORI	JP.AOMORI_	JP.EHIME	JP.EHIME_
HOKKAIDO	JP.HOKKAIDO_	JP.HYOGO	JP.HYOGO_	JP.IBARAKI	JP.IBARAKI_	JP.ISHIKAWA	JP.ISHIKAWA_	JP.IWATE
KOCHI_	JP.KUMAMOTO	JP.KUMAMOTO_	JP.KYOTO	JP.KYOTO_	JP.MIE	JP.MIE_	JP.MIYAGI	JP.MIYAGI_
OKINAWA	JP.OKINAWA_	JP.OSAKA	JP.OSAKA_	JP.SAGA	JP.SAGA_	JP.SHIMANE	JP.SHIMANE_	JP.SHIZUOKA
TOKYO_	JP.TOTTORI	JP.TOTTORI_	JP.TOYAMA	JP.TOYAMA_	JP.WAKAYAMA	JP.WAKAYAMA_	JP.YAMAGATA	JP.YAMAGATA_
UVA	LK.UVA_	LU.LUXEMBOUR G	LU.LUXEMBOUR G_	LV.REZEKNE	LV.REZEKNE_	LV.VENTSPILS	LV.VENTSPILS_	MK.BEROVO
KACHINSTATE_	MM.KACHINSTA TE	MM.KACHINSTA TE_	MM.KAYAHSTAT E	MM.KAYAHSTAT E_	MM.MONSTATE	MM.MONSTATE_	MO.MACAU	MO.MACAU_
CAMDECHE	MY.CAMDECHE	MY.CHITABAS	MY.CHITABAS	MY.CHIHUAHUA	MY.CHIHUAHUA	MY.COLIMA	MY.COLIMA	MY.DURANGO

Multiplication Tables

Multiplication Tables

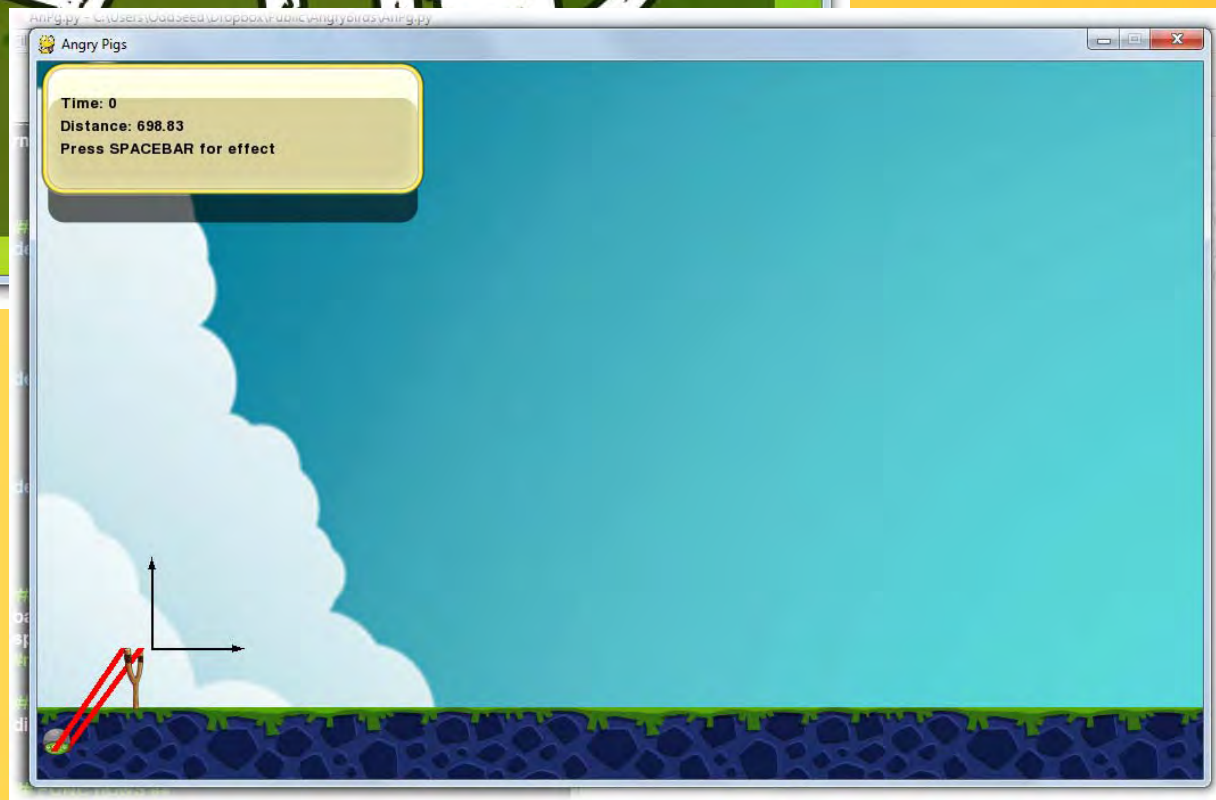
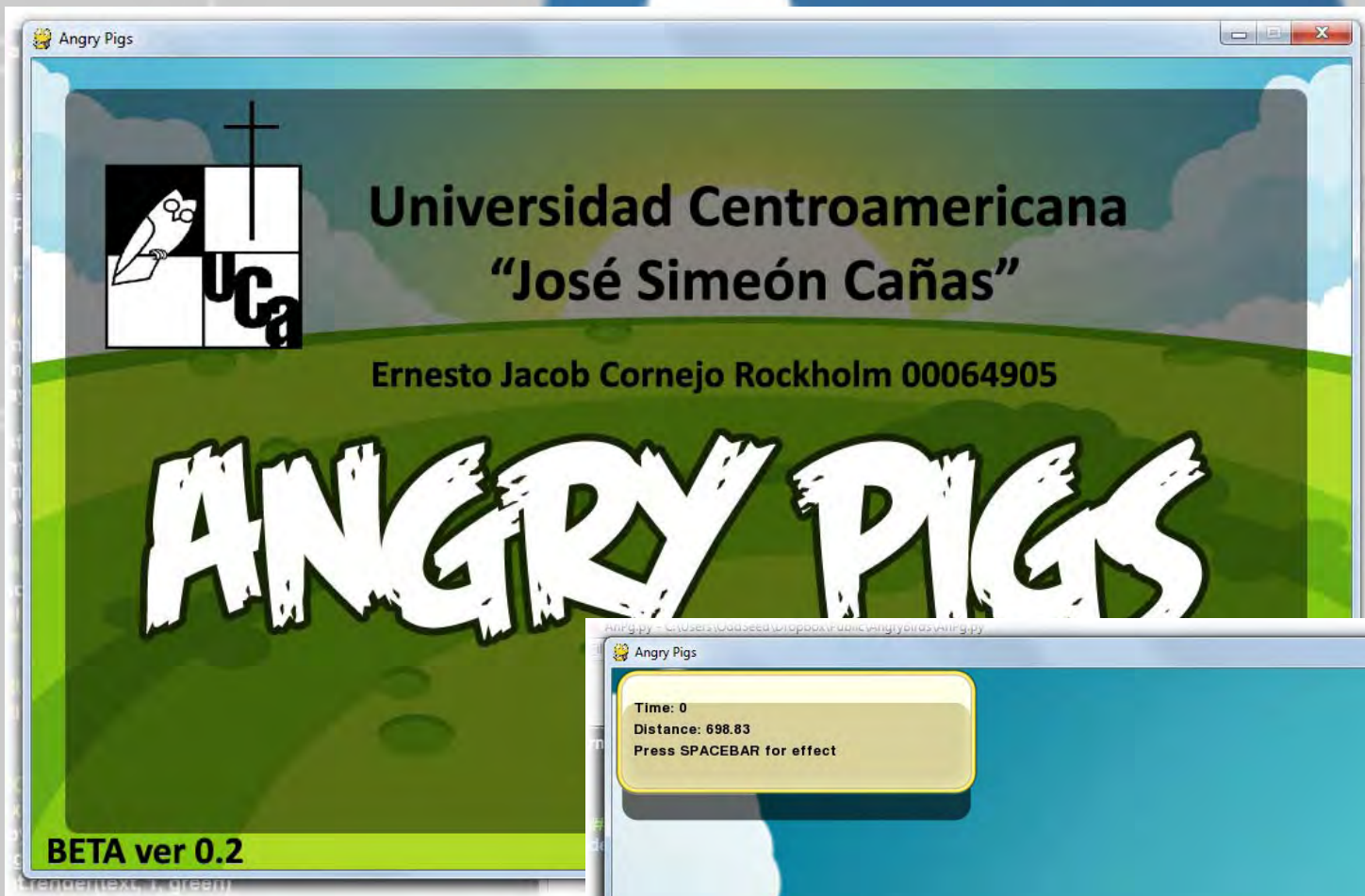
For Doris
By her favorite Brother

Play High Scores Exit

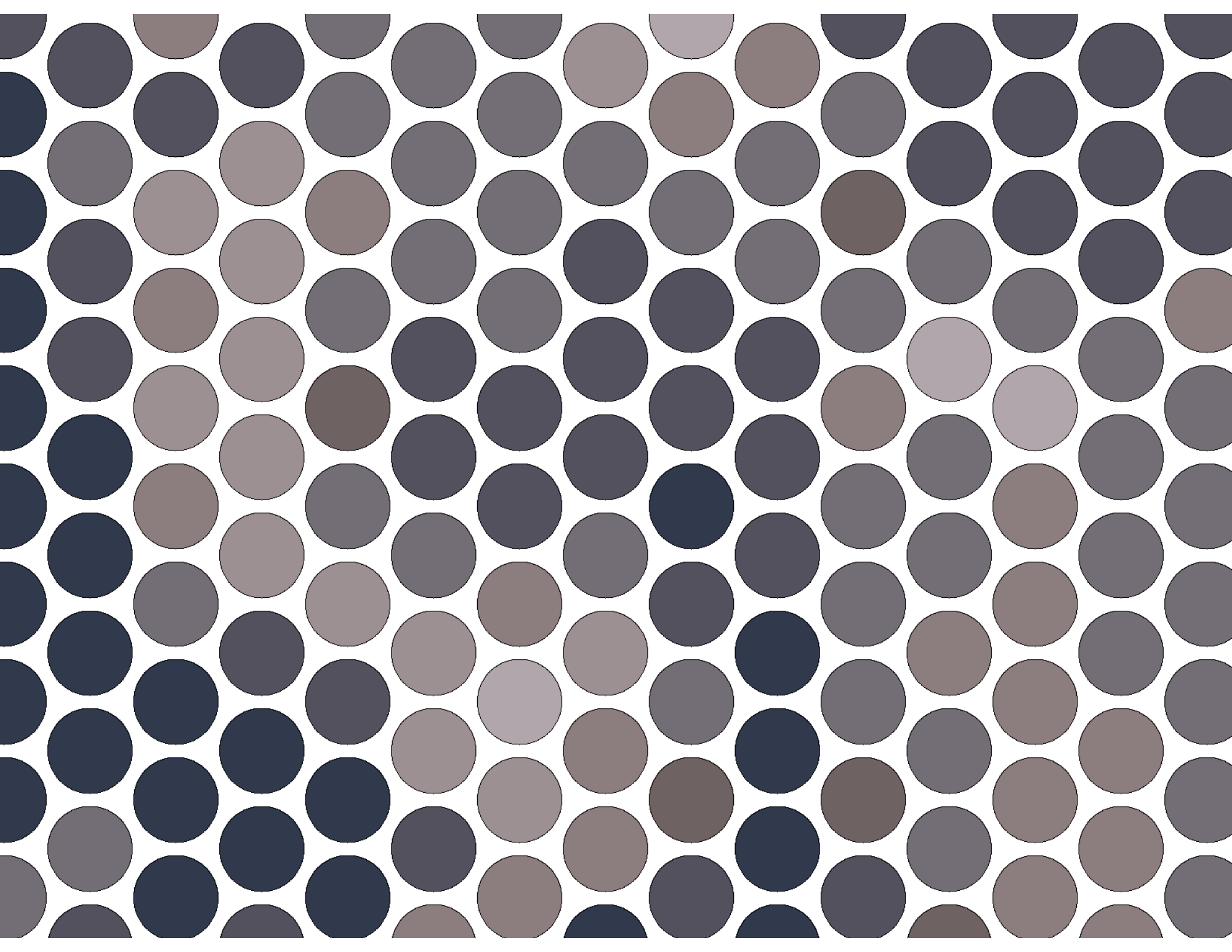
!	9	10	S
4			
8			

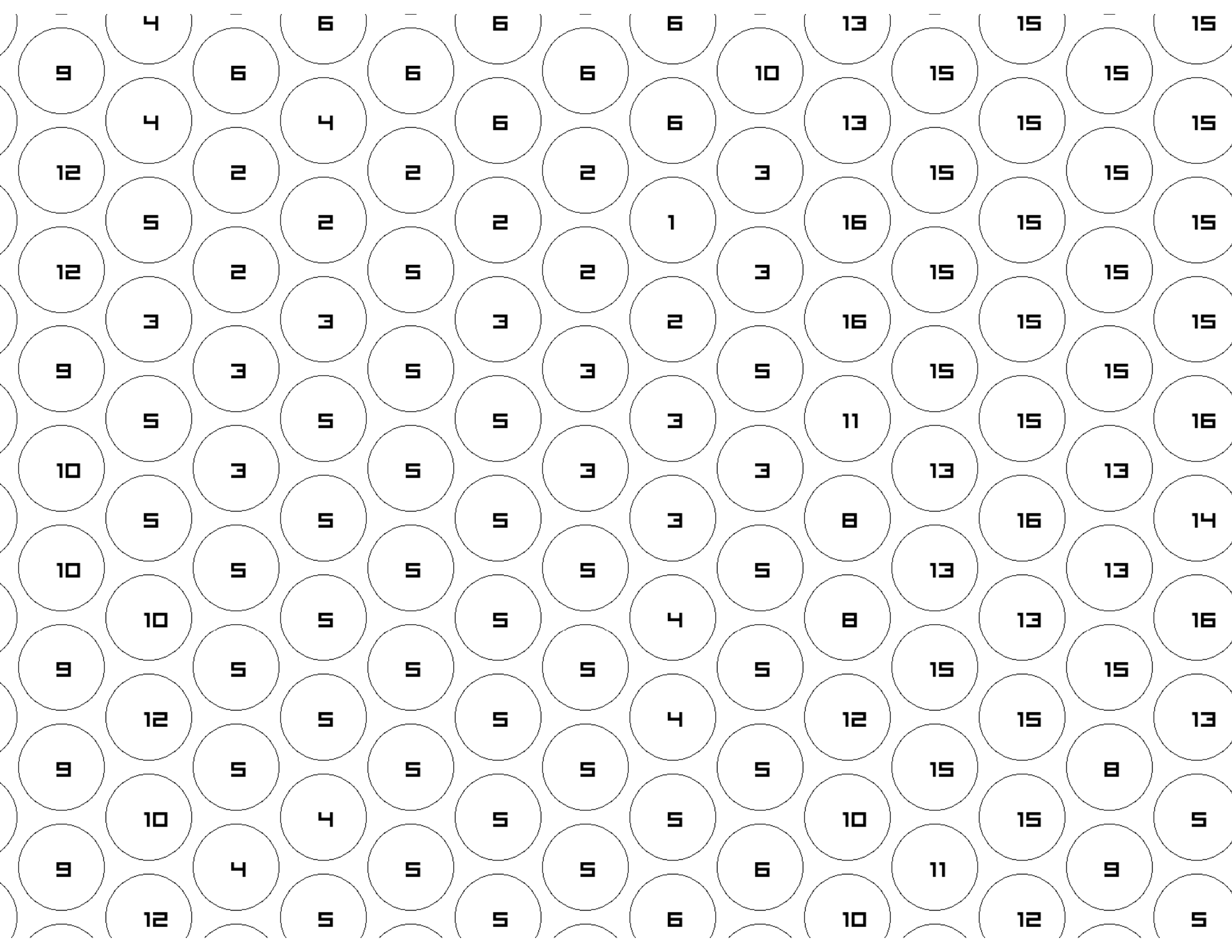
$7 \times 6 = ?$

0|











Color # 1
RGB: (113, 108, 112)
Bubbles: 2477
Volume: 0.84 L
Syringes: 96
Quarts: 1.11 Quarts
Gallons: 0.28 Gallons

Bucket # 17



Color # 7
RGB: (146, 124, 94)
Bubbles: 322
Volume: 0.11 L
Syringes: 13
Quarts: 0.14 Quarts
Gallons: 0.04 Gallons

Bucket # 59



Color # 2
RGB: (145, 142, 127)
Bubbles: 84
Volume: 0.03 L
Syringes: 04
Quarts: 0.04 Quarts
Gallons: 0.01 Gallons

Bucket # 61



Color # 8
RGB: (116, 130, 137)
Bubbles: 45
Volume: 0.02 L
Syringes: 02
Quarts: 0.02 Quarts
Gallons: 0.01 Gallons
DeltaE: C#: 4C#: 61

Bucket # 9



Color # 3
RGB: (110, 121, 113)
Bubbles: 415
Volume: 0.14 L
Syringes: 16
Quarts: 0.19 Quarts
Gallons: 0.05 Gallons

Bucket # 56



Color # 9
RGB: (99, 99, 86)
Bubbles: 29
Volume: 0.01 L
Syringes: 02
Quarts: 0.01 Quarts
Gallons: 0.00 Gallons

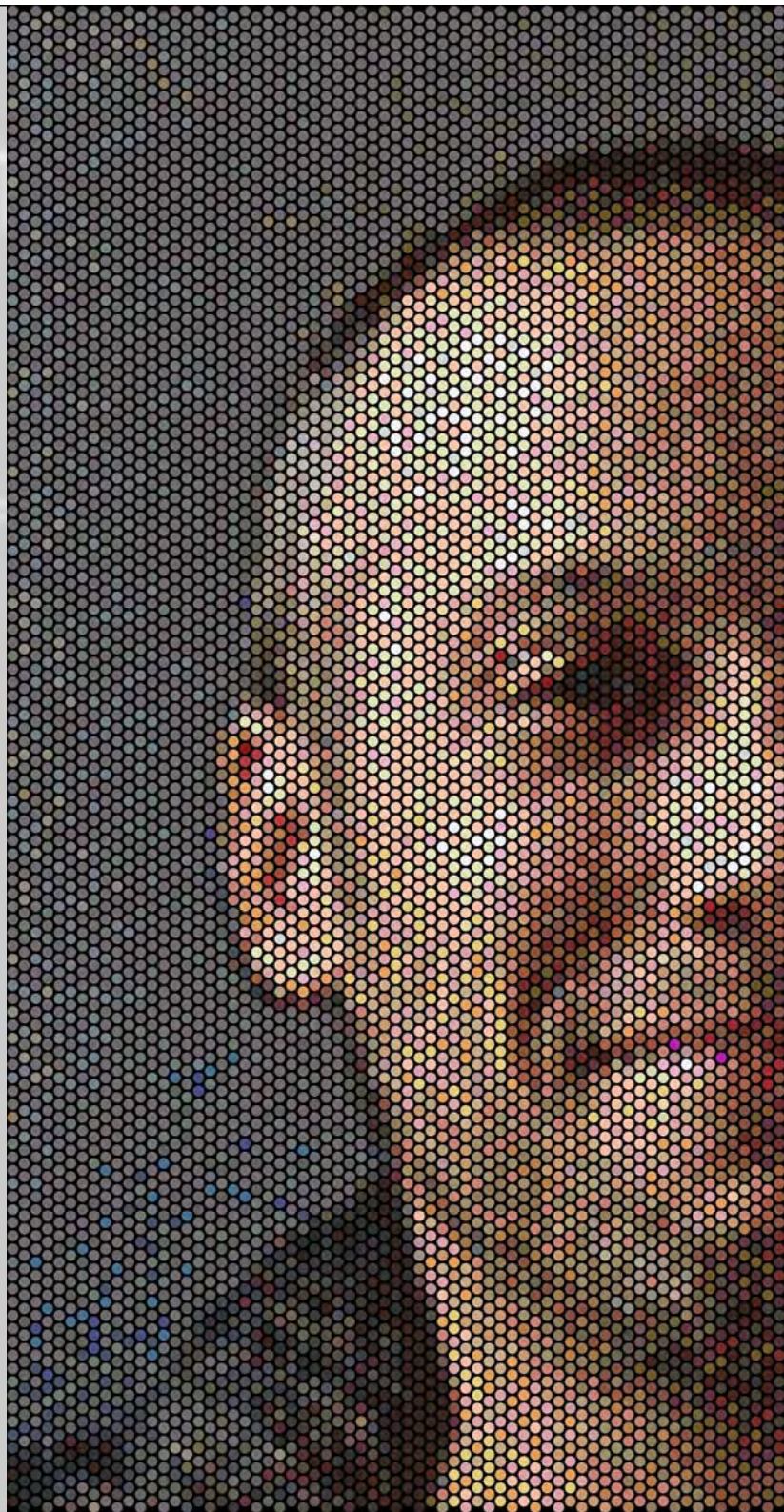
Bucket # 45



Color # 4
RGB: (118, 130, 139)
Bubbles: 153
Volume: 0.05 L
Syringes: 06
Quarts: 0.07 Quarts



Color # 10
RGB: (112, 86, 84)
Bubbles: 74
Volume: 0.03 L
Syringes: 03
Quarts: 0.03 Quarts











The background features the Python logo, which consists of two interlocking snakes, one blue and one yellow, set against a light gray background. The word "PREGUNTAS." is written in a large, black, sans-serif font across the center of the logo.

PREGUNTAS.

GRACIAS POR SU ATENCION.