

**Answer Key**  
**Question 1**

**Version 1:**

l e a d

The last 8 presidents are ['Richard', 'Gerald', 'James', 'Ronald', 'George', 'William', 'George', 'Barack']

BARACK !!!

**Version 2:**

e l e C t

The last 8 presidents are ['Nixon', 'Ford', 'Carter', 'Reagan', 'Bush', 'Clinton', 'Bush', 'Obama']

OBAMA !!!

**Version 3:**

w h i T e

The first 8 presidents are ['George', 'John', 'Thomas', 'James', 'James', 'John', 'Andrew', 'Martin']

ANDREW ???

**Version 4:**

f o u n d

The first 8 presidents are ['Washington', 'Adams', 'Jefferson', 'Madison', 'Monroe', 'Adams', 'Jackson', 'VanBuren']

ADAMS ???

**Answer Key**  
**Question 2**

Version 1:

```
def q2_1(s):
    list = s.split()
    for i in range(len(list)):
        list[i] = list[i].capitalize()
    return(list)
```

Version 2:

```
def q2_2(s):
    list = s.split(',')
    for i in range(len(list)):
        list[i] = list[i].upper()
    return(list)
```

Version 3:

```
def q2_3(s):
    list = s.split(';')
    for i in range(len(list)):
        list[i] = list[i].lower()
    return(list)
```

Version 4:

```
def q2_4(s):
    list = s.split('.')
    for i in range(len(list)):
        list[i] = list[i].rstrip()
    return(list)
```

## Answer Key Question 3

### Version 1:

a. ab def ghi jkl  
 ab df ghi jkl  
 ab df hi jkl  
 ab df hi kl

b. f k  
 z e  
 i n  
 i n  
 z e  
 y d  
 t y

### Version 2:

a. ac def ghi jkl  
 ac de ghi jkl  
 ac de gi jkl  
 ac de gi jl

b. h l  
 e i  
 j n  
 y c  
 k o  
 h l  
 j n

### Version 3:

a. bc def ghi jkl  
 bc df ghi jkl  
 bc df hi jkl  
 bc df hi kl

b. h j  
 m o  
 f h  
 l n  
 q s  
 m o  
 l n

### Version 4:

a. ac def ghi jkl  
 ac de ghi jkl  
 ac de gi jkl  
 ac de gi jl

b. g j  
 b e  
 c f  
 c f  
 b e  
 o r  
 p s  
 l o  
 k n

Answer Key  
Question 4

Version 1:

These are my new shoes  
They're good shoes  
They won't make you rich like me  
They won't make you rebound like me  
They won't make you handsome like me  
They'll only make you have shoes like me  
Count = 3

Version 2:

The queen of hearts she made some tarts all on a summer's day  
The knave of hearts he stole the tarts and took them clean away  
The king of hearts called for the tarts and beat the Knave full sore  
The knave of hearts brought back the tarts and vowed he'd steal no more  
Count = 4

Version 3:

Who is wise?  
He that learns from everyone  
Who is powerful?  
He that governs his passions  
Who is rich?  
He that is content  
Who is that?  
Nobody  
Count = 4

Version 4:

Some thoughts about education:  
Education is not preparation for life  
Education is life itself  
Education is not the filling of a pail  
Education is the lighting of a fire  
Education is a progressive discovery of our ignorance  
What do you think?  
Count = 5

## Answer Key Question 5

### Version 1:

```
def welcome():  
    print("Welcome")  
  
def userInput():  
    n,d = eval(input("Enter 2 numbers n,d: "))  
    return n,d  
  
def calculate(n,d):  
    return n%d  
  
def displayResults(r):  
    print(r)
```

### Version 2:

```
def welcome():  
    print("My program")  
  
def userInput():  
    f,g = eval(input("Enter 2 numbers f,g: "))  
    return f,g  
  
def calculate(f,g):  
    return f*g  
  
def displayResults(p):  
    print(p)
```

## Answer Key Question 5

### Version 3:

```
def welcome():
    print("Welcome")

def userInput():
    x,y = eval(input("Enter 2 numbers x,y: "))
    return x,y

def calculate(x,y):
    return x**y

def displayResults(z):
    print(z)
```

### Version 4:

```
from math import *

def welcome():
    print("My Program")

def userInput():
    a,b = eval(input("Enter 2 numbers a,b: "))
    return a,b

def calculate(a,b):
    return sqrt(a*b)

def displayResults(c):
    print(c)
```

**Answer Key**  
**Question 6**

Version 1:

- a. 5
- b. 27
- c. -1

Version 2:

- a. 0
- b. 0
- c. 0

Version 3:

- a. 2
- b. -1
- c. 5

Version 4:

- a. 0
- b. 1
- c. 0

Answer Key  
Question 7

Version 1:

m = Lt1 akHre a ntecre  
M = iteJc onrsti h onr

Version 2:

m = S h orltl ogehdnn  
M = otepo itedgi a oe

Version 3:

m = Adteds a wywt h po  
M = n h ihrnaa ihteson

Version 4:

m = Seslssasel ntesasoe  
M = h el e hlso h e hr.



**Answer Key**  
**Question 8**

Version 1:

```
def q8_1(list):
    ret = []
    for word in list:
        ret.append(word[-1])
    return ret
```

Version 2:

```
def q8_2(list):
    ret = []
    for word in list:
        ret.append(word[0].upper())
    return ret
```

Version 3:

```
def q8_3(list):
    ret = []
    for i in range (len(list)-1,-1,-1):
        ret.append(list[i])
    return ret
```

Version 4:

```
def q8_4(list):
    ret = []
    for i in range (len(list)-1,-1,-1):
        ret.append(len(list[i]))
    return ret
```

Answer Key  
Question 9

Version 1:

fool  
some  
time  
the  
time  
fool  
people  
time

Version 2:

fellow  
not  
country  
for  
you  
your

Version 3:

I  
banking  
are  
dangerous  
our  
than  
armies

Version 4:

justice  
to  
education  
of  
will  
a  
not

Answer Key  
Question 10

Version 1:

```
def q10_1():
    infile = open('infile.txt', 'r')
    outfile = open('outfile.txt', 'w')
    lines = infile.readlines()
    for i in range(len(lines) - 1, -1, -1):
        print(lines[i], file=outfile, end='')
    infile.close()
    outfile.close()
```

Version 2:

```
def q10_2():
    infile = open('infile.txt', 'r')
    outfile = open('outfile.txt', 'w')
    for line in infile:
        print(line.replace('and', 'the'), file=outfile, end='')
    infile.close()
    outfile.close()
```

Version 3:

```
def q10_3():
    infile = open('infile.txt', 'r')
    outfile = open('outfile.txt', 'w')
    for line in infile:
        print(len(line), file=outfile)
    infile.close()
    outfile.close()
```

Version 4:

```
def q10_4():
    infile = open('infile.txt', 'r')
    outfile = open('outfile.txt', 'w')
    lines = infile.readlines()
    for line in lines[:5]:
        print(line, file=outfile, end='')
    for line in lines[-5:]:
        print(line, file=outfile, end='')
    infile.close()
    outfile.close()
```