```
alph=str(" abcdefghijklmnopqrstuvwxyz")#each letters location on alphabet
quest=str("ed")#Used to figure out which function the user wants
line=str()#creates the line string that will be used to print the final
line
x=0 #sets x to zero and sets up the loops
crypt= str(input("type e for encrypt d for decrypt "))#prompts user to
know which function they want
num1= int(input("what is first number "))#prompts user to know what the
first number needed for encryption is
num2=int(input("what is the second number "))#prompts user to know what
the Second number needed for encryption is
t=quest.find(crypt)#determines if user wants the encrypt or decrypt
function
if(t==0):#checks to see if user said encrypt
 word=str(input("what do you want encrypted: "))#prompts user to create
the message they want encrypted
 for x in range (len(word)):#sets a loop to encrypt each letter
   letter=word[x] #identifies the letter that needs encrypting
   letter=letter.lower()#sets letter to lowercase so it fits the standard
the alphabet is in
   letter=alph.find(letter)#finds the letter position in the alphabet and
turns the letter intothe number that it's placed in
   num1=num1+(num2*x)#Generates the number that will be used to encrypt
the letter
   letter=(letter+num1)%26#uses previous number to generate a seemingly
number between 0-26
   letter=alph[letter]#converts number back into a letter
   line=line+letter #adds that letter to the final line that needs to be
printed
 print(line)#prints the final result
if(t==1):#checks to see if user said decrypt
 word=str(input("what do you want decrypted: "))#prompts user to create
the message they want decrypted
 for x in range (len(word)):#prompts user to give the message they want
decrypted
   letter=word[x] #identifies the letter that needs encrypting
   letter=letter.lower()#sets letter to lowercase so it fits the standard
the alphabet is in
   letter=alph.find(letter)#finds the letter position in the alphabet and
turns the letter intothe number that it's placed in
```

```
   num1=num1+(num2*x)#Generates the number that will be used to decrypt
the letter
   letter=(letter-num1)%26 # does the formula from the encryption part but
in reverse
   letter=alph[letter]#converts number back into a letter
   line=line+letter #adds that letter to the final line that needs to be
printed
 print(line)#prints the final result
```