from PIL.Image import \*

from tkinter import \*

fenetre = Tk()

a=liste.curselection() #choix fait

print("Vous avez choisi :", liste.get(a),a) #Donne le choix fait, a est le numéro de la liste

liste = Listbox(fenetre)

bouton=Button(fenetre, text="Appuyez pour choisir", command=selection) #boutton validant le choix

bouton.pack()

liste.insert(1, "Deutéranope") #numéro 0 de la liste

liste.insert(2, "Tritanope") #numéro 1 de la liste

liste.insert(3, "Monochromate") #numéro 2 de la liste

liste.pack()

liste.curselection()

import time

nom = str (input ("Nom de la photo. "))

l = int(input ("Entrez la longeur de la photo. "))

m = int(input ("Entrez la largeur de la photo. "))

i = open(nom)

# Debut du decompte du temps

start\_time = time.time()

x = 0

y = 0

a=0

while (x<l) and (y<m) :

(red,green,blue) = i.getpixel((x,y))

if red <= 42 and green <= 42 and blue <= 42: # 1

(red,green,blue,unknow)=(21,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 42 and blue <= 85: # 2

(red,green,blue,unknow)=(21,21,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 85 and blue <= 128 : # 3

(red,green,blue,unknow)=(21,21,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 170 and blue > 128 : # 4

(red,green,blue,unknow)=(21,21,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 212 and blue > 170 : # 5

(red,green,blue,unknow)=(21,21,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue >= 212 : # 6

(red,green,blue,unknow)=(21,21,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue<=42 : # 7

(red,green,blue,unknow)=(21,64,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue<=42 : # 8

(red,green,blue,unknow)=(21,107,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue<42 : # 9

(red,green,blue,unknow)=(21,149,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue<=42 : # 10

(red,green,blue,unknow)=(21,191,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue<=42 : # 11

(red,green,blue,unknow)=(21,233,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue<=42 : # 12

(red,green,blue,unknow)=(64,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue<=42 : # 13

(red,green,blue,unknow)=(107,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue<=42 : # 14

(red,green,blue,unknow)=(149,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue<=42 : # 15

(red,green,blue,unknow)=(191,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue<=42 : # 16

(red,green,blue,unknow)=(233,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue<=42 : # 17

(red,green,blue,unknow)=(64,64,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue<=42 : # 18

(red,green,blue,unknow)=(107,64,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue<=42 : # 19

(red,green,blue,unknow)=(149,64,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue<=42 : # 20

(red,green,blue,unknow)=(191,64,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue<=42 : # 21

(red,green,blue,unknow)=(233,64,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue<=42 : # 22

(red,green,blue,unknow)=(64,107,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue<=42 : # 23

(red,green,blue,unknow)=(64,149,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue<=42 : # 24

(red,green,blue,unknow)=(64,191,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue<=42 : # 25

(red,green,blue,unknow)=(64,233,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>42 and blue<=85 : # 26

(red,green,blue,unknow)=(64,21,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>42 and blue<=85 : # 27

(red,green,blue,unknow)=(107,21,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>42 and blue<=85 : # 28

(red,green,blue,unknow)=(149,21,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>42 and blue<=85 : # 29

(red,green,blue,unknow)=(191,21,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>42 and blue<=85 : # 30

(red,green,blue,unknow)=(233,21,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>85 and blue<=128 : # 31

(red,green,blue,unknow)=(64,21,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>128 and blue<=170 : # 32

(red,green,blue,unknow)=(64,21,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>170 and blue<=212 : # 33

(red,green,blue,unknow)=(64,21,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>212 : # 34

(red,green,blue,unknow)=(64,21,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>42 and blue<=85 : # 35

(red,green,blue,unknow)=(21,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>42 and blue<=85 : # 36

(red,green,blue,unknow)=(21,107,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>42 and blue<=85 : # 37

(red,green,blue,unknow)=(21,149,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>42 and blue<=85 : # 38

(red,green,blue,unknow)=(21,191,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>42 and blue<=85 : # 39

(red,green,blue,unknow)=(21,233,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>85 and blue<=128 : # 40

(red,green,blue,unknow)=(21,64,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>128 and blue<=170 : # 41

(red,green,blue,unknow)=(21,64,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>170 and blue<=212 : # 42

(red,green,blue,unknow)=(21,64,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>212 : # 43

(red,green,blue,unknow)=(21,64,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>85 and blue<=128 : # 44

(red,green,blue,unknow)=(64,64,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>128 and blue<=170 : # 45

(red,green,blue,unknow)=(64,64,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>170 and blue<=212 : # 46

(red,green,blue,unknow)=(64,64,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>212 : # 47

(red,green,blue,unknow)=(64,64,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>42 and blue<=85 : # 48

(red,green,blue,unknow)=(64,107,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>42 and blue<=85 : # 49

(red,green,blue,unknow)=(64,149,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>42 and blue<=85 : # 50

(red,green,blue,unknow)=(64,191,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>42 and blue<=85 : # 51

(red,green,blue,unknow)=(64,233,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>42 and blue<=85 : # 52

(red,green,blue,unknow)=(107,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>42 and blue<=85 : # 53

(red,green,blue,unknow)=(149,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>42 and blue<=85 : # 54

(red,green,blue,unknow)=(191,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>42 and blue<=85 : # 55

(red,green,blue,unknow)=(233,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>85 and blue<=128 : # 56

(red,green,blue,unknow)=(64,107,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>128 and blue<=170 : # 57

(red,green,blue,unknow)=(64,107,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>170 and blue<=212 : # 58

(red,green,blue,unknow)=(64,107,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>212 : # 59

(red,green,blue,unknow)=(64,107,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>85 and blue<=128 : # 60

(red,green,blue,unknow)=(64,149,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>85 and blue<=128 : # 61

(red,green,blue,unknow)=(64,191,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>85 and blue<=128 : # 62

(red,green,blue,unknow)=(64,233,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>42 and blue<=85 : # 63

(red,green,blue,unknow)=(107,107,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>42 and blue<=85 : # 64

(red,green,blue,unknow)=(149,107,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>42 and blue<=85 : # 65

(red,green,blue,unknow)=(191,107,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>42 and blue<=85 : # 66

(red,green,blue,unknow)=(233,107,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>42 and blue<=85 : # 67

(red,green,blue,unknow)=(107,149,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>42 and blue<=85 : # 68

(red,green,blue,unknow)=(107,191,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>42 and blue<=85 : # 69

(red,green,blue,unknow)=(107,233,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>85 and blue<=128 : # 70

(red,green,blue,unknow)=(107,64,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>85 and blue<=128 : # 71

(red,green,blue,unknow)=(149,64,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>85 and blue<=128 : # 72

(red,green,blue,unknow)=(191,64,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>85 and blue<=128 : # 73

(red,green,blue,unknow)=(233,64,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>128 and blue<=170 : # 74

(red,green,blue,unknow)=(107,64,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>170 and blue<=212 : # 75

(red,green,blue,unknow)=(107,64,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>212 : # 76

(red,green,blue,unknow)=(107,64,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>85 and blue<=128 : # 77

(red,green,blue,unknow)=(149,149,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>85 and blue<=128 : # 78

(red,green,blue,unknow)=(191,149,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>85 and blue<=128 : # 79

(red,green,blue,unknow)=(233,149,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>85 and blue<=128 : # 80

(red,green,blue,unknow)=(149,191,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>85 and blue<=128 : # 81

(red,green,blue,unknow)=(149,233,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>128 and blue<=170 : # 82

(red,green,blue,unknow)=(149,107,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>128 and blue<=170 : # 83

(red,green,blue,unknow)=(191,107,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>128 and blue<=170 : # 84

(red,green,blue,unknow)=(233,107,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>170 and blue<=212 : # 85

(red,green,blue,unknow)=(149,107,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>212 : # 86

(red,green,blue,unknow)=(149,107,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>128 and blue<=170 : # 87

(red,green,blue,unknow)=(107,149,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 88

(red,green,blue,unknow)=(107,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>128 and blue<=170 : # 89

(red,green,blue,unknow)=(107,233,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>170 and blue<=212 : # 90

(red,green,blue,unknow)=(107,149,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>212 : # 91

(red,green,blue,unknow)=(107,149,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>128 and blue<=170 : # 92

(red,green,blue,unknow)=(191,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>128 and blue<=170 : # 93

(red,green,blue,unknow)=(233,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 94

(red,green,blue,unknow)=(191,233,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>170 and blue<=212 : # 95

(red,green,blue,unknow)=(191,149,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>170 and blue<=212 : # 96

(red,green,blue,unknow)=(233,149,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>212 : # 97

(red,green,blue,unknow)=(191,149,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 98

(red,green,blue,unknow)=(149,191,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>170 and blue<=212 : # 99

(red,green,blue,unknow)=(149,233,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>212 : # 100

(red,green,blue,unknow)=(149,191,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 101

(red,green,blue,unknow)=(149,191,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>212 : # 102

(red,green,blue,unknow)=(191,233,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>212 : # 103

(red,green,blue,unknow)=(233,191,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>170 and blue<=212 : # 104

(red,green,blue,unknow)=(233,233,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>42 and blue<=85 : # 105

(red,green,blue,unknow)=(64,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>85 and blue<=128 : # 106

(red,green,blue,unknow)=(107,107,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>128 and blue<=170 : # 107

(red,green,blue,unknow)=(149,149,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>170 and blue<=212 : # 108

(red,green,blue,unknow)=(191,191,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>212 : # 109

(red,green,blue,unknow)=(233,233,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue<=42 : # 110

(red,green,blue,unknow)=(107,233,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue<=42 : # 111

(red,green,blue,unknow)=(149,233,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue<=42 : # 112

(red,green,blue,unknow)=(191,233,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue<=42 : # 113

(red,green,blue,unknow)=(233,107,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue<=42 : # 114

(red,green,blue,unknow)=(233,149,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue<=42 : # 115

(red,green,blue,unknow)=(233,191,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>85 and blue<=128 : # 116

(red,green,blue,unknow)=(233,21,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>128 and blue<=170 : # 117

(red,green,blue,unknow)=(233,21,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>170 and blue<=212 : # 118

(red,green,blue,unknow)=(233,21,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>212 : # 119

(red,green,blue,unknow)=(107,21,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>212 : # 120

(red,green,blue,unknow)=(149,21,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>212 : # 121

(red,green,blue,unknow)=(191,21,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>85 and blue<=128 : # 122

(red,green,blue,unknow)=(21,233,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>128 and blue<=170 : # 123

(red,green,blue,unknow)=(21,233,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>170 and blue<=212 : # 124

(red,green,blue,unknow)=(21,233,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>212 : # 125

(red,green,blue,unknow)=(21,107,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>212 : # 126

(red,green,blue,unknow)=(21,149,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>212 : # 127

(red,green,blue,unknow)=(21,191,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>212 : # 128

(red,green,blue,unknow)=(64,149,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>212 : # 129

(red,green,blue,unknow)=(64,191,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>212 : # 130

(red,green,blue,unknow)=(64,233,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>170 and blue<=212 : # 131

(red,green,blue,unknow)=(64,233,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>128 and blue<=170 : # 132

(red,green,blue,unknow)=(64,233,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>85 and blue<=128 : # 133

(red,green,blue,unknow)=(107,233,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>128 and blue<=170 : # 134

(red,green,blue,unknow)=(149,233,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>170 and blue<=212 : # 135

(red,green,blue,unknow)=(191,233,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue<=42 : # 136

(red,green,blue,unknow)=(191,191,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 137

(red,green,blue,unknow)=(191,233,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>128 and blue<=170 : # 138

(red,green,blue,unknow)=(149,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 139

(red,green,blue,unknow)=(107,149,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 140

(red,green,blue,unknow)=(107,149,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>85 and blue<=128 : # 141

(red,green,blue,unknow)=(107,191,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 142

(red,green,blue,unknow)=(107,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

x=x+1

if (x==(l-1)):

x=0

y=y+1

print("Temps d execution pixelise : %s secondes " % (time.time() - start\_time))

Image.show(i)

x = 0

y = 0

if liste.get(a) = "Deutéranope" :

while (x<l) and (y<m) :

(red,green,blue) = i.getpixel((x,y))

if red <= 42 and green <= 42 and blue <= 42: # 1

(red,green,blue,unknow)=(23,20,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 42 and blue <= 85: # 2

(red,green,blue,unknow)=(0,28,47,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 85 and blue <= 128 : # 3

(red,green,blue,unknow)=(0,38,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 170 and blue > 128 : # 4

(red,green,blue,unknow)=(0,50,83,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 212 and blue > 170 : # 5

(red,green,blue,unknow)=(0,62,104,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 212 : # 6

(red,green,blue,unknow)=(0,75,124,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue<=42 : # 7

(red,green,blue,unknow)=(68,52,25,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue<=42 : # 8

(red,green,blue,unknow)=(114,86,30,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue<=42 : # 9

(red,green,blue,unknow)=(160,121,38,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue<=42 : # 10

(red,green,blue,unknow)=(205,155,46,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue<=42 : # 11

(red,green,blue,unknow)=(250,189,54,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue<=42 : # 12

(red,green,blue,unknow)=(44,34,19,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue<=42 : # 13

(red,green,blue,unknow)=(70,53,14,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue<=42 : # 14

(red,green,blue,unknow)=(97,73,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue<=42 : # 15

(red,green,blue,unknow)=(123,93,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue<=42 : # 16

(red,green,blue,unknow)=(149,112,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue<=42 : # 17

(red,green,blue,unknow)=(76,58,23,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue<=42 : # 18

(red,green,blue,unknow)=(93,70,18,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue<=42 : # 19

(red,green,blue,unknow)=(114,85,6,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue<=42 : # 20

(red,green,blue,unknow)=(136,102,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue<=42 : # 21

(red,green,blue,unknow)=(160,120,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue<=42 : # 22

(red,green,blue,unknow)=(119,90,29,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue<=42 : # 23

(red,green,blue,unknow)=(163,123,37,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue<=42 : # 24

(red,green,blue,unknow)=(207,157,45,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue<=42 : # 25

(red,green,blue,unknow)=(252,190,53,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>42 and blue<=85 : # 26

(red,green,blue,unknow)=(29,39,60,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>42 and blue<=85 : # 27

(red,green,blue,unknow)=(65,57,59,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>42 and blue<=85 : # 28

(red,green,blue,unknow)=(93,75,57,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>42 and blue<=85 : # 29

(red,green,blue,unknow)=(120,94,54,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>=212 and green<=42 and blue>42 and blue<=85 : # 30

(red,green,blue,unknow)=(148,113,51,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>85 and blue<=128 : # 31

(red,green,blue,unknow)=(0,48,82,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>128 and blue<=170 : # 32

(red,green,blue,unknow)=(0,57,97,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>170 and blue<=212 : # 33

(red,green,blue,unknow)=(0,68,114,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>212 : # 34

(red,green,blue,unknow)=(0,80,133,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>42 and blue<=85 : # 35

(red,green,blue,unknow)=(59,55,65,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>42 and blue<=85 : # 36

(red,green,blue,unknow)=(109,88,97,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>42 and blue<=85 : # 37

(red,green,blue,unknow)=(157,122,70,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>42 and blue<=85 : # 38

(red,green,blue,unknow)=(203,156,74,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>42 and blue<=85 : # 39

(red,green,blue,unknow)=(248,190,79,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>85 and blue<=128 : # 40

(red,green,blue,unknow)=(27,62,106,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>128 and blue<=170 : # 41

(red,green,blue,unknow)=(0,70,121,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>170 and blue<=212 : # 42

(red,green,blue,unknow)=(0,79,134,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>212 : # 43

(red,green,blue,unknow)=(0,89,150,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>85 and blue<=128 : # 44

(red,green,blue,unknow)=(46,67,106,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>128 and blue<=170 : # 45

(red,green,blue,unknow)=(0,76,132,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>170 and blue<=212 : # 46

(red,green,blue,unknow)=(0,84,143,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>212 : # 47

(red,green,blue,unknow)=(0,94,158,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>42 and blue<=85 : # 48

(red,green,blue,unknow)=(115,93,67,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>42 and blue<=85 : # 49

(red,green,blue,unknow)=(160,125,71,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>42 and blue<=85 : # 50

(red,green,blue,unknow)=(205,158,75,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>42 and blue<=85 : # 51

(red,green,blue,unknow)=(250,191,80,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>42 and blue<=85 : # 52

(red,green,blue,unknow)=(88,73,62,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>42 and blue<=85 : # 53

(red,green,blue,unknow)=(110,88,60,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>42 and blue<=85 : # 54

(red,green,blue,unknow)=(134,104,57,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>42 and blue<=85 : # 55

(red,green,blue,unknow)=(159,122,54,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>85 and blue<=128 : # 56

(red,green,blue,unknow)=(104,97,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>128 and blue<=170 : # 57

(red,green,blue,unknow)=(85,103,150,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>170 and blue<=212 : # 58

(red,green,blue,unknow)=(41,110,190,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>212 : # 59

(red,green,blue,unknow)=(0,118,205,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>85 and blue<=128 : # 60

(red,green,blue,unknow)=(153,128,112,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>85 and blue<=128 : # 61

(red,green,blue,unknow)=(200,160,114,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>85 and blue<=128 : # 62

(red,green,blue,unknow)=(246,193,118,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>42 and blue<=85 : # 63

(red,green,blue,unknow)=(126,100,66,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>42 and blue<=85 : # 64

(red,green,blue,unknow)=(142,110,63,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>42 and blue<=85 : # 65

(red,green,blue,unknow)=(160,123,60,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>42 and blue<=85 : # 66

(red,green,blue,unknow)=(181,138,57,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>42 and blue<=85 : # 67

(red,green,blue,unknow)=(168,130,69,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>42 and blue<=85 : # 68

(red,green,blue,unknow)=(211,162,74,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>42 and blue<=85 : # 69

(red,green,blue,unknow)=(255,194,79,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>85 and blue<=128 : # 70

(red,green,blue,unknow)=(74,78,104,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>85 and blue<=128 : # 71

(red,green,blue,unknow)=(100,92,103,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>85 and blue<=128 : # 72

(red,green,blue,unknow)=(126,107,101,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>85 and blue<=128 : # 73

(red,green,blue,unknow)=(153,124,99,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>128 and blue<=170 : # 74

(red,green,blue,unknow)=(41,86,145,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>170 and blue<=212 : # 75

(red,green,blue,unknow)=(0,94,162,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>212 : # 76

(red,green,blue,unknow)=(0,102,174,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>85 and blue<=128 : # 77

(red,green,blue,unknow)=(173,140,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>85 and blue<=128 : # 78

(red,green,blue,unknow)=(188,150,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>85 and blue<=128 : # 79

(red,green,blue,unknow)=(206,162,104,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>85 and blue<=128 : # 80

(red,green,blue,unknow)=(215,170,112,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>85 and blue<=128 : # 81

(red,green,blue,unknow)=(255,202,124,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>128 and blue<=170 : # 82

(red,green,blue,unknow)=(120,119,147,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>128 and blue<=170 : # 83

(red,green,blue,unknow)=(142,130,145,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>128 and blue<=170 : # 84

(red,green,blue,unknow)=(166,144,143,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>170 and blue<=212 : # 85

(red,green,blue,unknow)=(98,125,187,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>212 : # 86

(red,green,blue,unknow)=(55,133,227,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>128 and blue<=170 : # 87

(red,green,blue,unknow)=(150,137,152,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 88

(red,green,blue,unknow)=(107,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>128 and blue<=170 : # 89

(red,green,blue,unknow)=(244,199,157,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>170 and blue<=212 : # 90

(red,green,blue,unknow)=(132,142,192,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>212 : # 91

(red,green,blue,unknow)=(106,149,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>128 and blue<=170 : # 92

(red,green,blue,unknow)=(219,181,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>128 and blue<=170 : # 93

(red,green,blue,unknow)=(234,191,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 94

(red,green,blue,unknow)=(255,212,167,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>170 and blue<=212 : # 95

(red,green,blue,unknow)=(166,159,189,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>170 and blue<=212 : # 96

(red,green,blue,unknow)=(186,170,187,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>212 : # 97

(red,green,blue,unknow)=(147,165,230,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 98

(red,green,blue,unknow)=(195,177,194,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>170 and blue<=212 : # 99

(red,green,blue,unknow)=(242,207,196,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>212 : # 100

(red,green,blue,unknow)=(179,183,235,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 101

(red,green,blue,unknow)=(195,177,194,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>212 : # 102

(red,green,blue,unknow)=(241,218,236,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>212 : # 103

(red,green,blue,unknow)=(212,199,231,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>170 and blue<=212 : # 104

(red,green,blue,unknow)=(255,224,206,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>42 and blue<=85 : # 105

(red,green,blue,unknow)=(70,62,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>85 and blue<=128 : # 106

(red,green,blue,unknow)=(117,104,108,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>128 and blue<=170 : # 107

(red,green,blue,unknow)=(163,144,150,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>170 and blue<=212 : # 108

(red,green,blue,unknow)=(209,185,192,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>212 : # 109

(red,green,blue,unknow)=(255,226,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue<=42 : # 110

(red,green,blue,unknow)=(255,194,65,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue<=42 : # 111

(red,green,blue,unknow)=(255,200,102,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue<=42 : # 112

(red,green,blue,unknow)=(255,209,137,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue<=42 : # 113

(red,green,blue,unknow)=(183,137,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue<=42 : # 114

(red,green,blue,unknow)=(212,159,0,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue<=42 : # 115

(red,green,blue,unknow)=(147,185,27,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>85 and blue<=128 : # 116

(red,green,blue,unknow)=(141,117,97,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>128 and blue<=170 : # 117

(red,green,blue,unknow)=(130,121,139,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>170 and blue<=212 : # 118

(red,green,blue,unknow)=(112,127,179,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>212 : # 119

(red,green,blue,unknow)=(0,90,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>212 : # 120

(red,green,blue,unknow)=(0,104,177,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>212 : # 121

(red,green,blue,unknow)=(0,119,209,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>85 and blue<=128 : # 122

(red,green,blue,unknow)=(244,192,118,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>128 and blue<=170 : # 123

(red,green,blue,unknow)=(237,194,158,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>170 and blue<=212 : # 124

(red,green,blue,unknow)=(227,198,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>212 : # 125

(red,green,blue,unknow)=(0,115,198,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>212 : # 126

(red,green,blue,unknow)=(83,143,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>212 : # 127

(red,green,blue,unknow)=(156,172,237,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>212 : # 128

(red,green,blue,unknow)=(91,145,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>212 : # 129

(red,green,blue,unknow)=(159,174,237,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>212 : # 130

(red,green,blue,unknow)=(216,204,239,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>170 and blue<=212 : # 131

(red,green,blue,unknow)=(229,199,198,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>128 and blue<=170 : # 132

(red,green,blue,unknow)=(239,196,158,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>85 and blue<=128 : # 133

(red,green,blue,unknow)=(251,196,117,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>128 and blue<=170 : # 134

(red,green,blue,unknow)=(251,204,156,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>170 and blue<=212 : # 135

(red,green,blue,unknow)=(253,213,195,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue<=42 : # 136

(red,green,blue,unknow)=(233,175,35,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 137

(red,green,blue,unknow)=(255,210,141,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>128 and blue<=170 : # 138

(red,green,blue,unknow)=(207,173,153,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 139

(red,green,blue,unknow)=(168,130,69,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 140

(red,green,blue,unknow)=(161,133,110,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>85 and blue<=128 : # 141

(red,green,blue,unknow)=(206,164,113,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 142

(red,green,blue,unknow)=(197,167,154,255)

i.putpixel((x,y,),(red,green,blue,unknow))

x=x+1

if (x==(l-1)):

x=0

y=y+1

# Affichage du temps d execution

print("Temps d execution deuteranope : %s secondes " % (time.time() - start\_time))

Image.show(i)

x = 0

y = 0

if liste.get(a) = "Tritanope" :

while (x<l) and (y<m) :

(red,green,blue) = i.getpixel((x,y))

if red <= 42 and green <= 42 and blue <= 42: # 1

(red,green,blue,unknow)=(21,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 42 and blue <= 85: # 2

(red,green,blue,unknow)=(0,30,32,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 85 and blue <= 128 : # 3

(red,green,blue,unknow)=(0,41,43,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 170 and blue > 128 : # 4

(red,green,blue,unknow)=(0,54,56,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 212 and blue > 170 : # 5

(red,green,blue,unknow)=(0,67,70,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 212 : # 6

(red,green,blue,unknow)=(0,81,84,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue<=42 : # 7

(red,green,blue,unknow)=(32,59,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue<=42 : # 8

(red,green,blue,unknow)=(48,99,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue<=42 : # 9

(red,green,blue,unknow)=(65,139,150,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue<=42 : # 10

(red,green,blue,unknow)=(82,178,192,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue<=42 : # 11

(red,green,blue,unknow)=(99,217,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue<=42 : # 12

(red,green,blue,unknow)=(63,21,22,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue<=42 : # 13

(red,green,blue,unknow)=(106,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue<=42 : # 14

(red,green,blue,unknow)=(149,21,19,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue<=42 : # 15

(red,green,blue,unknow)=(191,22,16,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue<=42 : # 16

(red,green,blue,unknow)=(233,22,10,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue<=42 : # 17

(red,green,blue,unknow)=(67,59,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue<=42 : # 18 fini

(red,green,blue,unknow)=(108,59,63,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue<=42 : # 19

(red,green,blue,unknow)=(150,59,63,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue<=42 : # 20

(red,green,blue,unknow)=(192,59,62,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue<=42 : # 21

(red,green,blue,unknow)=(234,59,62,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue<=42 : # 22

(red,green,blue,unknow)=(75,99,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue<=42 : # 23

(red,green,blue,unknow)=(86,139,150,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue<=42 : # 24

(red,green,blue,unknow)=(99,178,192,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue<=42 : # 25

(red,green,blue,unknow)=(113,217,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>42 and blue<=85 : # 26

(red,green,blue,unknow)=(60,31,33,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>42 and blue<=85 : # 27

(red,green,blue,unknow)=(107,31,32,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>42 and blue<=85 : # 28

(red,green,blue,unknow)=(148,31,31,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>42 and blue<=85 : # 29

(red,green,blue,unknow)=(190,31,30,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>=212 and green<=42 and blue>42 and blue<=85 : # 30

(red,green,blue,unknow)=(232,31,27,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>85 and blue<=128 : # 31

(red,green,blue,unknow)=(50,45,48,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>128 and blue<=170 : # 32

(red,green,blue,unknow)=(29,60,65,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>170 and blue<=212 : # 33

(red,green,blue,unknow)=(0,73,78,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>212 : # 34

(red,green,blue,unknow)=(0,86,91,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>42 and blue<=85 : # 35

(red,green,blue,unknow)=(23,62,67,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>42 and blue<=85 : # 36

(red,green,blue,unknow)=(43,101,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>42 and blue<=85 : # 37

(red,green,blue,unknow)=(61,140,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>42 and blue<=85 : # 38

(red,green,blue,unknow)=(79,179,193,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>42 and blue<=85 : # 39

(red,green,blue,unknow)=(97,217,235,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>85 and blue<=128 : # 40

(red,green,blue,unknow)=(0,69,74,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>128 and blue<=170 : # 41

(red,green,blue,unknow)=(0,76,81,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>170 and blue<=212 : # 42

(red,green,blue,unknow)=(0,86,90,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>212 : # 43

(red,green,blue,unknow)=(0,96,101,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>85 and blue<=128 : # 44

(red,green,blue,unknow)=(55,70,75,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>128 and blue<=170 : # 45

(red,green,blue,unknow)=(40,80,87,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>170 and blue<=212 : # 46

(red,green,blue,unknow)=(0,91,98,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>212 : # 47

(red,green,blue,unknow)=(0,101,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>42 and blue<=85 : # 48

(red,green,blue,unknow)=(73,102,110,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>42 and blue<=85 : # 49

(red,green,blue,unknow)=(84,140,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>42 and blue<=85 : # 50

(red,green,blue,unknow)=(97,179,193,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>42 and blue<=85 : # 51

(red,green,blue,unknow)=(112,217,235,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>42 and blue<=85 : # 52

(red,green,blue,unknow)=(107,63,68,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>42 and blue<=85 : # 53

(red,green,blue,unknow)=(149,63,68,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>42 and blue<=85 : # 54

(red,green,blue,unknow)=(191,64,67,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>42 and blue<=85 : # 55

(red,green,blue,unknow)=(233,64,66,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>85 and blue<=128 : # 56

(red,green,blue,unknow)=(66,106,114,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>128 and blue<=170 : # 57

(red,green,blue,unknow)=(53,112,121,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>170 and blue<=212 : # 58

(red,green,blue,unknow)=(20,120,130,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>212 : # 59

(red,green,blue,unknow)=(0,128,137,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>85 and blue<=128 : # 60

(red,green,blue,unknow)=(78,143,154,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>85 and blue<=128 : # 61

(red,green,blue,unknow)=(93,181,195,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>85 and blue<=128 : # 62

(red,green,blue,unknow)=(108,219,237,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>42 and blue<=85 : # 63

(red,green,blue,unknow)=(112,102,110,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>42 and blue<=85 : # 64

(red,green,blue,unknow)=(153,102,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>42 and blue<=85 : # 65

(red,green,blue,unknow)=(194,102,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>42 and blue<=85 : # 66

(red,green,blue,unknow)=(235,102,108,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>42 and blue<=85 : # 67

(red,green,blue,unknow)=(119,140,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>42 and blue<=85 : # 68

(red,green,blue,unknow)=(128,179,193,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>42 and blue<=85 : # 69

(red,green,blue,unknow)=(139,217,235,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>85 and blue<=128 : # 70

(red,green,blue,unknow)=(103,71,76,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>85 and blue<=128 : # 71

(red,green,blue,unknow)=(146,71,76,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>85 and blue<=128 : # 72

(red,green,blue,unknow)=(189,71,75,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>85 and blue<=128 : # 73

(red,green,blue,unknow)=(231,71,75,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>128 and blue<=170 : # 74

(red,green,blue,unknow)=(96,81,87,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>170 and blue<=212 : # 75

(red,green,blue,unknow)=(85,92,100,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>212 : # 76

(red,green,blue,unknow)=(67,105,114,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>85 and blue<=128 : # 77

(red,green,blue,unknow)=(155,143,154,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>85 and blue<=128 : # 78

(red,green,blue,unknow)=(195,143,154,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>85 and blue<=128 : # 79

(red,green,blue,unknow)=(237,143,154,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>85 and blue<=128 : # 80

(red,green,blue,unknow)=(162,181,195,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>85 and blue<=128 : # 81

(red,green,blue,unknow)=(170,219,237,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>128 and blue<=170 : # 82

(red,green,blue,unknow)=(145,112,121,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>128 and blue<=170 : # 83

(red,green,blue,unknow)=(188,112,121,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>128 and blue<=170 : # 84

(red,green,blue,unknow)=(231,112,120,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>170 and blue<=212 : # 85

(red,green,blue,unknow)=(139,121,130,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>212 : # 86

(red,green,blue,unknow)=(129,131,141,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>128 and blue<=170 : # 87

(red,green,blue,unknow)=(109,147,159,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 88

(red,green,blue,unknow)=(119,184,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>128 and blue<=170 : # 89

(red,green,blue,unknow)=(131,222,240,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>170 and blue<=212 : # 90

(red,green,blue,unknow)=(100,154,166,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>212 : # 91

(red,green,blue,unknow)=(86,161,174,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>128 and blue<=170 : # 92

(red,green,blue,unknow)=(198,184,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>128 and blue<=170 : # 93

(red,green,blue,unknow)=(238,184,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 94

(red,green,blue,unknow)=(204,222,240,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>170 and blue<=212 : # 95

(red,green,blue,unknow)=(187,154,166,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>170 and blue<=212 : # 96

(red,green,blue,unknow)=(230,154,165,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>212 : # 97

(red,green,blue,unknow)=(181,161,174,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 98

(red,green,blue,unknow)=(152,189,204,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>170 and blue<=212 : # 99

(red,green,blue,unknow)=(161,226,244,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>212 : # 100

(red,green,blue,unknow)=(144,195,211,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 101

(red,green,blue,unknow)=(152,189,204,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>212 : # 102

(red,green,blue,unknow)=(194,231,249,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>212 : # 103

(red,green,blue,unknow)=(230,195,210,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>170 and blue<=212 : # 104

(red,green,blue,unknow)=(240,226,243,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>42 and blue<=85 : # 105

(red,green,blue,unknow)=(65,63,68,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>85 and blue<=128 : # 106

(red,green,blue,unknow)=(108,106,114,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>128 and blue<=170 : # 107

(red,green,blue,unknow)=(151,147,159,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>170 and blue<=212 : # 108

(red,green,blue,unknow)=(193,189,204,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>212 : # 109

(red,green,blue,unknow)=(235,231,249,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue<=42 : # 110

(red,green,blue,unknow)=(140,217,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue<=42 : # 111

(red,green,blue,unknow)=(173,217,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue<=42 : # 112

(red,green,blue,unknow)=(210,217,234,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue<=42 : # 113

(red,green,blue,unknow)=(236,100,106,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue<=42 : # 114

(red,green,blue,unknow)=(239,139,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue<=42 : # 115

(red,green,blue,unknow)=(243,178,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>85 and blue<=128 : # 116

(red,green,blue,unknow)=(230,46,46,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>128 and blue<=170 : # 117

(red,green,blue,unknow)=(228,61,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>170 and blue<=212 : # 118

(red,green,blue,unknow)=(224,77,81,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>212 : # 119

(red,green,blue,unknow)=(63,92,99,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>212 : # 120

(red,green,blue,unknow)=(123,92,99,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>212 : # 121

(red,green,blue,unknow)=(172,93,99,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>85 and blue<=128 : # 122

(red,green,blue,unknow)=(92,219,237,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>128 and blue<=170 : # 123

(red,green,blue,unknow)=(84,222,240,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>170 and blue<=212 : # 124

(red,green,blue,unknow)=(71,226,244,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>212 : # 125

(red,green,blue,unknow)=(0,125,133,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>212 : # 126

(red,green,blue,unknow)=(0,158,170,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>212 : # 127

(red,green,blue,unknow)=(0,194,209,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>212 : # 128

(red,green,blue,unknow)=(0,160,173,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>212 : # 129

(red,green,blue,unknow)=(45,195,211,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>212 : # 130

(red,green,blue,unknow)=(74,231,249,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>170 and blue<=212 : # 131

(red,green,blue,unknow)=(90,226,244,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>128 and blue<=170 : # 132

(red,green,blue,unknow)=(101,222,240,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>85 and blue<=128 : # 133

(red,green,blue,unknow)=(136,219,237,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>128 and blue<=170 : # 134

(red,green,blue,unknow)=(166,222,240,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>170 and blue<=212 : # 135

(red,green,blue,unknow)=(200,226,244,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue<=42 : # 136

(red,green,blue,unknow)=(204,178,192,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 137

(red,green,blue,unknow)=(209,217,235,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>128 and blue<=170 : # 138

(red,green,blue,unknow)=(158,184,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 139

(red,green,blue,unknow)=(119,140,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 140

(red,green,blue,unknow)=(116,143,154,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>85 and blue<=128 : # 141

(red,green,blue,unknow)=(128,181,195,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 142

(red,green,blue,unknow)=(119,184,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

x=x+1

if (x==(l-1)):

x=0

y=y+1

print("Temps d execution tritanope : %s secondes " % (time.time() - start\_time))

Image.show(i)

x = 0

y = 0

else :

while (x<l) and (y<m) :

(red,green,blue) = i.getpixel((x,y))

if red <= 42 and green <= 42 and blue <= 42: # 1

(red,green,blue,unknow)=(21,21,21,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 42 and blue <= 85: # 2

(red,green,blue,unknow)=(26,26,26,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 85 and blue <= 128 : # 3

(red,green,blue,unknow)=(31,31,31,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 170 and blue > 128 : # 4

(red,green,blue,unknow)=(36,36,36,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue <= 212 and blue > 170 : # 5

(red,green,blue,unknow)=(40,40,40,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red <= 42 and green <= 42 and blue > 212 : # 6

(red,green,blue,unknow)=(45,45,45,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue<=42 : # 7

(red,green,blue,unknow)=(46,46,46,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue<=42 : # 8

(red,green,blue,unknow)=(71,71,71,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue<=42 : # 9

(red,green,blue,unknow)=(96,96,96,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue<=42 : # 10

(red,green,blue,unknow)=(121,121,121,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue<=42 : # 11

(red,green,blue,unknow)=(145,145,145,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue<=42 : # 12

(red,green,blue,unknow)=(34,34,34,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue<=42 : # 13

(red,green,blue,unknow)=(46,46,46,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue<=42 : # 14

(red,green,blue,unknow)=(59,59,59,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue<=42 : # 15

(red,green,blue,unknow)=(72,72,72,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue<=42 : # 16

(red,green,blue,unknow)=(84,84,84,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue<=42 : # 17

(red,green,blue,unknow)=(58,58,58,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue<=42 : # 18

(red,green,blue,unknow)=(71,71,71,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue<=42 : # 19

(red,green,blue,unknow)=(84,84,84,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue<=42 : # 20

(red,green,blue,unknow)=(96,96,96,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue<=42 : # 21

(red,green,blue,unknow)=(109,109,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue<=42 : # 22

(red,green,blue,unknow)=(83,83,83,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue<=42 : # 23

(red,green,blue,unknow)=(109,109,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue<=42 : # 24

(red,green,blue,unknow)=(133,133,133,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue<=42 : # 25

(red,green,blue,unknow)=(158,158,158,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>42 and blue<=85 : # 26

(red,green,blue,unknow)=(38,38,38,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>42 and blue<=85 : # 27

(red,green,blue,unknow)=(52,52,52,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>42 and blue<=85 : # 28

(red,green,blue,unknow)=(64,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>42 and blue<=85 : # 29

(red,green,blue,unknow)=(77,77,77,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>=212 and green<=42 and blue>42 and blue<=85 : # 30

(red,green,blue,unknow)=(89,89,89,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>85 and blue<=128 : # 31

(red,green,blue,unknow)=(43,43,43,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>128 and blue<=170 : # 32

(red,green,blue,unknow)=(48,48,48,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>170 and blue<=212 : # 33

(red,green,blue,unknow)=(53,53,53,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green<=42 and blue>212 : # 34

(red,green,blue,unknow)=(58,58,58,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>42 and blue<=85 : # 35

(red,green,blue,unknow)=(50,50,50,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>42 and blue<=85 : # 36

(red,green,blue,unknow)=(76,76,76,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>42 and blue<=85 : # 37

(red,green,blue,unknow)=(101,101,101,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>42 and blue<=85 : # 38

(red,green,blue,unknow)=(126,126,126,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>42 and blue<=85 : # 39

(red,green,blue,unknow)=(150,150,150,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>85 and blue<=128 : # 40

(red,green,blue,unknow)=(55,55,55,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>128 and blue<=170 : # 41

(red,green,blue,unknow)=(60,60,60,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>170 and blue<=212 : # 42

(red,green,blue,unknow)=(65,65,65,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>42 and green<=85 and blue>212 : # 43

(red,green,blue,unknow)=(70,70,70,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>85 and blue<=128 : # 44

(red,green,blue,unknow)=(68,68,68,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>128 and blue<=170 : # 45

(red,green,blue,unknow)=(74,74,74,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>170 and blue<=212 : # 46

(red,green,blue,unknow)=(78,78,78,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>212 : # 47

(red,green,blue,unknow)=(83,83,83,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>42 and blue<=85 : # 48

(red,green,blue,unknow)=(89,89,89,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>42 and blue<=85 : # 49

(red,green,blue,unknow)=(114,114,114,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>42 and blue<=85 : # 50

(red,green,blue,unknow)=(139,139,139,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>42 and blue<=85 : # 51

(red,green,blue,unknow)=(163,163,163,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>42 and blue<=85 : # 52

(red,green,blue,unknow)=(77,77,77,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>42 and blue<=85 : # 53

(red,green,blue,unknow)=(89,89,89,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>42 and blue<=85 : # 54

(red,green,blue,unknow)=(102,102,102,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>42 and blue<=85 : # 55

(red,green,blue,unknow)=(115,115,115,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>85 and blue<=128 : # 56

(red,green,blue,unknow)=(94,94,94,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>128 and blue<=170 : # 57

(red,green,blue,unknow)=(99,99,99,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>170 and blue<=212 : # 58

(red,green,blue,unknow)=(104,104,104,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>85 and green<=128 and blue>212 : # 59

(red,green,blue,unknow)=(109,109,109,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>85 and blue<=128 : # 60

(red,green,blue,unknow)=(119,119,119,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>85 and blue<=128 : # 61

(red,green,blue,unknow)=(143,143,143,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>85 and blue<=128 : # 62

(red,green,blue,unknow)=(168,168,168,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>42 and blue<=85 : # 63

(red,green,blue,unknow)=(102,102,102,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>42 and blue<=85 : # 64

(red,green,blue,unknow)=(115,115,115,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>42 and blue<=85 : # 65

(red,green,blue,unknow)=(127,127,127,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>42 and blue<=85 : # 66

(red,green,blue,unknow)=(140,140,140,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>42 and blue<=85 : # 67

(red,green,blue,unknow)=(127,127,127,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>42 and blue<=85 : # 68

(red,green,blue,unknow)=(151,151,151,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>42 and blue<=85 : # 69

(red,green,blue,unknow)=(176,176,176,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>85 and blue<=128 : # 70

(red,green,blue,unknow)=(82,82,82,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>42 and green<=85 and blue>85 and blue<=128 : # 71

(red,green,blue,unknow)=(94,94,94,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>42 and green<=85 and blue>85 and blue<=128 : # 72

(red,green,blue,unknow)=(107,107,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>42 and green<=85 and blue>85 and blue<=128 : # 73

(red,green,blue,unknow)=(119,119,119,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>128 and blue<=170 : # 74

(red,green,blue,unknow)=(87,87,87,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>170 and blue<=212 : # 75

(red,green,blue,unknow)=(91,91,91,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>42 and green<=85 and blue>212 : # 76

(red,green,blue,unknow)=(96,96,96,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>85 and blue<=128 : # 77

(red,green,blue,unknow)=(144,144,144,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>85 and blue<=128 : # 78

(red,green,blue,unknow)=(157,157,157,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>85 and blue<=128 : # 79

(red,green,blue,unknow)=(169,169,169,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>85 and blue<=128 : # 80

(red,green,blue,unknow)=(169,169,169,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>85 and blue<=128 : # 81

(red,green,blue,unknow)=(194,194,194,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>128 and blue<=170 : # 82

(red,green,blue,unknow)=(124,124,124,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>85 and green<=128 and blue>128 and blue<=170 : # 83

(red,green,blue,unknow)=(137,137,137,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue>128 and blue<=170 : # 84

(red,green,blue,unknow)=(149,149,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>170 and blue<=212 : # 85

(red,green,blue,unknow)=(129,129,129,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>85 and green<=128 and blue>212 : # 86

(red,green,blue,unknow)=(134,134,134,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>128 and blue<=170 : # 87

(red,green,blue,unknow)=(136,136,136,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 88

(red,green,blue,unknow)=(161,161,161,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>128 and blue<=170 : # 89

(red,green,blue,unknow)=(186,186,186,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>170 and blue<=212 : # 90

(red,green,blue,unknow)=(141,141,141,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>212 : # 91

(red,green,blue,unknow)=(146,146,146,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>128 and blue<=170 : # 92

(red,green,blue,unknow)=(186,186,186,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>128 and blue<=170 : # 93

(red,green,blue,unknow)=(199,199,199,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 94

(red,green,blue,unknow)=(211,211,211,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>170 and blue<=212 : # 95

(red,green,blue,unknow)=(166,166,166,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue>170 and blue<=212 : # 96

(red,green,blue,unknow)=(179,179,179,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>128 and green<=170 and blue>212 : # 97

(red,green,blue,unknow)=(171,171,171,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 98

(red,green,blue,unknow)=(178,178,178,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>170 and blue<=212 : # 99

(red,green,blue,unknow)=(203,203,203,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>212 : # 100

(red,green,blue,unknow)=(183,183,183,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>170 and blue<=212 : # 101

(red,green,blue,unknow)=(178,178,178,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>212 : # 102

(red,green,blue,unknow)=(220,220,220,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue>212 : # 103

(red,green,blue,unknow)=(208,208,208,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>170 and blue<=212 : # 104

(red,green,blue,unknow)=(228,228,228,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>42 and green<=85 and blue>42 and blue<=85 : # 105

(red,green,blue,unknow)=(64,64,64,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>85 and green<=128 and blue>85 and blue<=128 : # 106

(red,green,blue,unknow)=(107,107,107,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>128 and green<=170 and blue>128 and blue<=170 : # 107

(red,green,blue,unknow)=(149,149,149,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue>170 and blue<=212 : # 108

(red,green,blue,unknow)=(191,191,191,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>212 and blue>212 : # 109

(red,green,blue,unknow)=(233,233,233,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue<=42 : # 110

(red,green,blue,unknow)=(171,171,171,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue<=42 : # 111

(red,green,blue,unknow)=(184,184,184,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue<=42 : # 112

(red,green,blue,unknow)=(196,196,196,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>85 and green<=128 and blue<=42 : # 113

(red,green,blue,unknow)=(135,135,135,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>128 and green<=170 and blue<=42 : # 114

(red,green,blue,unknow)=(160,160,160,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green>170 and green<=212 and blue<=42 : # 115

(red,green,blue,unknow)=(184,184,184,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>85 and blue<=128 : # 116

(red,green,blue,unknow)=(94,94,94,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>128 and blue<=170 : # 117

(red,green,blue,unknow)=(99,99,99,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>212 and green<=42 and blue>170 and blue<=212 : # 118

(red,green,blue,unknow)=(104,104,104,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green<=42 and blue>212 : # 119

(red,green,blue,unknow)=(71,71,71,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green<=42 and blue>212 : # 120

(red,green,blue,unknow)=(83,83,83,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green<=42 and blue>212 : # 121

(red,green,blue,unknow)=(96,96,96,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>85 and blue<=128 : # 122

(red,green,blue,unknow)=(155,155,155,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>128 and blue<=170 : # 123

(red,green,blue,unknow)=(160,160,160,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>212 and blue>170 and blue<=212 : # 124

(red,green,blue,unknow)=(165,165,165,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>85 and green<=128 and blue>212 : # 125

(red,green,blue,unknow)=(96,96,96,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>128 and green<=170 and blue>212 : # 126

(red,green,blue,unknow)=(120,120,120,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red<=42 and green>170 and green<=212 and blue>212 : # 127

(red,green,blue,unknow)=(145,145,145,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>128 and green<=170 and blue>212 : # 128

(red,green,blue,unknow)=(133,133,133,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>170 and green<=212 and blue>212 : # 129

(red,green,blue,unknow)=(158,158,158,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>212 : # 130

(red,green,blue,unknow)=(182,182,182,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>170 and blue<=212 : # 131

(red,green,blue,unknow)=(177,177,177,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>42 and red<=85 and green>212 and blue>128 and blue<=170 : # 132

(red,green,blue,unknow)=(173,173,173,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>212 and blue>85 and blue<=128 : # 133

(red,green,blue,unknow)=(181,181,181,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>212 and blue>128 and blue<=170 : # 134

(red,green,blue,unknow)=(198,198,198,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>170 and blue<=212 : # 135

(red,green,blue,unknow)=(216,216,216,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>170 and green<=212 and blue<=42 : # 136

(red,green,blue,unknow)=(172,172,172,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>170 and red<=212 and green>212 and blue>128 and blue<=170 : # 137

(red,green,blue,unknow)=(201,201,201,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>128 and red<=170 and green>170 and green<=212 and blue>128 and blue<=170 : # 138

(red,green,blue,unknow)=(174,174,174,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 139

(red,green,blue,unknow)=(127,127,127,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>128 and green<=170 and blue>85 and blue<=128 : # 140

(red,green,blue,unknow)=(132,132,132,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>85 and blue<=128 : # 141

(red,green,blue,unknow)=(156,156,156,255)

i.putpixel((x,y,),(red,green,blue,unknow))

elif red>85 and red<=128 and green>170 and green<=212 and blue>128 and blue<=170 : # 142

(red,green,blue,unknow)=(161,161,161,255)

i.putpixel((x,y,),(red,green,blue,unknow))

x=x+1

if (x==(l-1)):

x=0

y=y+1

# Affichage du temps d execution

print("Temps d execution monochromatique : %s secondes " % (time.time() - start\_time))

Image.show(i)

else