# Задание 2

## Решение 1

from tkinter import \*  
  
  
def c(kod, cc):  
 emp.delete(0, END)  
 emp.insert(0, kod)  
 lab['text'] = cc  
  
  
root = Tk()  
root.resizable(False, False)  
  
lab = Label(width=30)  
lab.pack()  
emp = Entry(width=30, justify=CENTER)  
emp.pack()  
  
colour = {'#ff0000': 'Красный',  
 '#ff7d00': 'Оранжевый',  
 '#ffff00': 'Желтый',  
 '#00ff00': 'Зеленый',  
 '#007dff': 'Голубой',  
 '#0000ff': 'Синий',  
 '#7d00ff': 'Фиолетовый'}  
  
  
for i in colour:  
 c\_k = lambda kod=i, cc=colour[i]: c(kod, cc)  
 button = Button(background=i, activebackground=i, command=c\_k, width=30)  
 button.pack()  
  
  
root.mainloop()

## Решение 2

from tkinter import \*  
  
  
def c1():  
 emp.delete(0, END)  
 emp.insert(0, '#ff0000')  
 lab['text'] = 'Красный'  
  
def c2():  
 emp.delete(0, END)  
 emp.insert(0, '#ff7d00')  
 lab['text'] = 'Оранжевый'  
  
def c3():  
 emp.delete(0, END)  
 emp.insert(0, '#ffff00')  
 lab['text'] = 'Желтый'  
  
def c4():  
 emp.delete(0, END)  
 emp.insert(0, '#00ff00')  
 lab['text'] = 'Зеленый'  
  
def c5():  
 emp.delete(0, END)  
 emp.insert(0, '#007dff')  
 lab['text'] = 'Голубой'  
  
def c6():  
 emp.delete(0, END)  
 emp.insert(0, '#0000ff')  
 lab['text'] = 'Синий'  
  
def c7():  
 emp.delete(0, END)  
 emp.insert(0, '#7d00ff')  
 lab['text'] = 'Фиолетовый'  
  
  
root = Tk()  
  
lab = Label(width=30)  
emp = Entry(width=30, justify=CENTER)  
lab.pack()  
emp.pack()  
  
b1 = Button(background='#ff0000', command=c1, width=30)  
b1.pack()  
  
b2 = Button(background='#ff7d00', command=c2, width=30)  
b2.pack()  
  
b3 = Button(background='#ffff00', command=c3, width=30)  
b3.pack()  
  
b4 = Button(background='#00ff00', command=c4, width=30)  
b4.pack()  
  
b5 = Button(background='#007dff', command=c5, width=30)  
b5.pack()  
  
b6 = Button(background='#0000ff', command=c6, width=30)  
b6.pack()  
  
b7 = Button(background='#7d00ff', command=c7, width=30)  
b7.pack()  
  
root.mainloop()

# Задание 3

## Решение 1

from tkinter import \*  
  
  
def c(kod, cc):  
 emp.delete(0, END)  
 emp.insert(0, kod)  
 lab['text'] = cc  
  
  
root = Tk()  
root.resizable(False, False)  
  
lab = Label(width=30)  
lab.pack()  
emp = Entry(width=30, justify=CENTER)  
emp.pack()  
  
colour = {'#f0000': 'Красный',  
 '#ff7d00': 'Оранжевый',  
 '#ffff00': 'Желтый',  
 '#00ff00': 'Зеленый',  
 '#007dff': 'Голубой',  
 '#0000ff': 'Синий',  
 '#7d00ff': 'Фиолетовый'}  
  
  
for i in colour:  
 c\_k = lambda kod=i, cc=colour[i]: c(kod, cc)  
 button = Button(background=i, activebackground=i, command=c\_k, width=3)  
 button.pack(side=LEFT)  
  
  
root.mainloop()

## Решение 2

from tkinter import \*  
  
  
def c1():  
 emp.delete(0, END)  
 emp.insert(0, '#ff0000')  
 lab['text'] = 'Красный'  
  
def c2():  
 emp.delete(0, END)  
 emp.insert(0, '#ff7d00')  
 lab['text'] = 'Оранжевый'  
  
def c3():  
 emp.delete(0, END)  
 emp.insert(0, '#ffff00')  
 lab['text'] = 'Желтый'  
  
def c4():  
 emp.delete(0, END)  
 emp.insert(0, '#00ff00')  
 lab['text'] = 'Зеленый'  
  
def c5():  
 emp.delete(0, END)  
 emp.insert(0, '#007dff')  
 lab['text'] = 'Голубой'  
  
def c6():  
 emp.delete(0, END)  
 emp.insert(0, '#0000ff')  
 lab['text'] = 'Синий'  
  
def c7():  
 emp.delete(0, END)  
 emp.insert(0, '#7d00ff')  
 lab['text'] = 'Фиолетовый'  
  
  
root = Tk()  
  
lab = Label(width=30)  
emp = Entry(width=30, justify=CENTER)  
lab.pack()  
emp.pack()  
  
b1 = Button(background='#ff0000', command=c1, width=3)  
b1.pack(side=LEFT)  
  
b2 = Button(background='#ff7d00', command=c2, width=3)  
b2.pack(side=LEFT)  
  
b3 = Button(background='#ffff00', command=c3, width=3)  
b3.pack(side=LEFT)  
  
b4 = Button(background='#00ff00', command=c4, width=3)  
b4.pack(side=LEFT)  
  
b5 = Button(background='#007dff', command=c5, width=3)  
b5.pack(side=LEFT)  
  
b6 = Button(background='#0000ff', command=c6, width=3)  
b6.pack(side=LEFT)  
  
b7 = Button(background='#7d00ff', command=c7, width=3)  
b7.pack(side=LEFT)  
  
root.mainloop()

# Задание 4

## Решение

from tkinter import \*  
  
root = Tk()  
  
top = Frame(root)  
bot = Frame(root)  
top.pack()  
bot.pack()  
  
e = Entry(top)  
e.pack(side=LEFT)  
  
def op():  
 text.delete(1.0, END)  
 open\_text = open(e.get(), 'r')  
 text\_o =open\_text.readlines()  
 for item in text\_o:  
 text.insert(END, item)  
 open\_text.close()  
  
  
def sv():  
 save\_text = open(e.get(), 'w')  
 save\_text.writelines(text.get(1.0, END))  
 save\_text.close()  
  
button\_colour1 = Button(top, text="открыть", command=op)  
button\_colour1.pack(side=LEFT)  
button\_colour2 = Button(top, text="сохранить", command=sv)  
button\_colour2.pack(side=LEFT)  
  
text = Text(bot, width=30, wrap=WORD)  
text.pack(side=LEFT)  
  
scr = Scrollbar(bot, command=text.yview)  
scr.pack(side=LEFT, fill= Y)  
text.config(yscrollcommand=scr.set)  
  
root.mainloop()

# Задание 5

## Решение

from tkinter import \*  
  
  
def print\_text():  
 lab\_text['text'] = var.get()  
  
  
root = Tk()  
  
var = StringVar()  
l\_frame = Frame(root)  
r\_frame = Frame(root)  
l\_frame.pack(side= LEFT)  
r\_frame.pack(side= LEFT)  
  
lab\_text = Label(r\_frame)  
  
batton1 = Radiobutton(l\_frame, text='Вася', variable=var, value='+4 9087654321', indicatoron=0, command=print\_text)  
batton2 = Radiobutton(l\_frame, text='Петя', variable=var, value='+5 2087653321', indicatoron=0, command=print\_text)  
batton3 = Radiobutton(l\_frame, text='Маша', variable=var, value='+6 4087632321', indicatoron=0, command=print\_text)  
  
  
batton1.pack(fill=X)  
batton2.pack(fill=X)  
batton3.pack(fill=X)  
lab\_text.pack(fill=Y)  
  
root.mainloop()

# Задание 6

## Решение

from tkinter import \*  
  
def b1():  
 select = list(list1.curselection())  
 select.reverse()  
 for i in select:  
 list2.insert(END, list1.get(i))  
 list1.delete(i)  
  
  
def b2():  
 select = list(list2.curselection())  
 select.reverse()  
 for i in select:  
 list1.insert(END, list2.get(i))  
 list2.delete(i)  
  
  
root = Tk()  
root.title('6')  
root.resizable(False, False)  
  
  
list1 = Listbox(selectmode=EXTENDED)  
list1.grid(column=0, row=0, rowspan=4)  
  
list2 = Listbox(selectmode=EXTENDED)  
list2.grid(column=3, row=0, rowspan=4)  
  
for i in ['apple', 'bananas', 'carrot', 'meat', 'potato']:  
 list1.insert(END, i)  
  
but1 = Button(text='>>>', command=b1)  
but1.grid(column=2, row=1)  
but2 = Button(text='<<<', command=b2)  
but2.grid(column=2, row=2)  
  
root.mainloop()

# Задание 7

## Решение

from tkinter import \*  
  
def ent(event):  
 list1.insert(0, entry0.get())  
 entry0.delete(0, END)  
  
def lis(event):  
 entry0.delete(0, END)  
 entry0.insert(0, list1.get(list1.curselection()))  
 list1.delete(list1.curselection())  
  
root = Tk()  
  
entry0 = Entry()  
entry0.bind('<Return>', ent)  
entry0.pack()  
  
list1 = Listbox()  
list1.bind('<Double-Button-1>', lis)  
list1.pack()  
  
root.mainloop()

# Задание 8

## Решение

from tkinter import \*  
  
  
def evb():  
 t['width'] = en1.get()  
 t['height'] = en2.get()  
  
  
def ev1(event):  
 t['width'] = en1.get()  
 t['height'] = en2.get()  
  
  
def ev2(event):  
 t['bg'] = 'white'  
  
  
def ev3(event):  
 t['bg'] = 'lightgrey'  
  
  
root = Tk()  
root.title('8')  
root.resizable(False, False)  
  
f1 = Frame()  
f11 = Frame(f1)  
f12 = Frame(f1)  
f3 = Frame()  
  
en1 = Entry(f11, width=4)  
en2 = Entry(f11, width=4)  
  
en1.bind('<Return>', ev1)  
en2.bind('<Return>', ev1)  
  
b = Button(f12, text='Изменить', command=evb)  
  
t = Text(f3, width=25, height=12, bg='lightgrey')  
t.bind('<FocusIn>', ev2)  
t.bind('<FocusOut>', ev3)  
  
f1.pack()  
f11.pack(side=LEFT)  
f12.pack(side=LEFT)  
f3.pack()  
en1.pack()  
en2.pack(side=LEFT)  
b.pack(side=LEFT)  
t.pack()  
  
root.mainloop()

# Задание 9

## Решение

from tkinter import \*  
  
root = Tk()  
root.title('9')  
root.resizable(False, False)  
  
c = Canvas(root, width=200, height=200, bg='white')  
c.pack()  
  
c.create\_polygon(100, 40, 40, 90, 157, 90, fill='lightblue')  
  
c.create\_rectangle(60, 80, 140, 170,  
 fill='lightblue',  
 outline='lightblue'  
 )  
  
c.create\_oval(150, 5, 190, 40, width=2,  
 fill='orange',  
 outline='orange'  
 )  
  
for i in range(20):  
 c.create\_arc(i\*10, 120, i\*10 + 100, 270,  
 start=190, extent=-40,  
 style=ARC, outline='green',  
 width=2)  
  
root.mainloop()

# Задание 10

from tkinter import \*  
  
  
def move():  
 x = canvas.coords(ball)[2]  
 y = canvas.coords(ball)[3]  
 if (canvas.x == x) and (canvas.y == y):  
 return  
 if (canvas.x < x):  
 canvas.move(ball, -1, 0)  
 if (canvas.x > x):  
 canvas.move(ball, 1, 0)  
 if (canvas.y < y):  
 canvas.move(ball, 0, -1)  
 if (canvas.y > y):  
 canvas.move(ball, 0, 1)  
 root.after(5, move)  
  
  
def move\_oval(event):  
 canvas.x = event.x + canvas.radius  
 canvas.y = event.y + canvas.radius  
 move()  
  
  
root = Tk()  
  
canvas = Canvas(width=200, height=200)  
canvas.pack()  
  
canvas.radius = 25  
ball = canvas.create\_oval(140, 140, 160, 160,  
 fill='green')  
canvas.bind("<Button-1>", move\_oval)  
  
root.mainloop()