```
import tkinter as tk
def f_to_c():
  c_entry.delete(0, tk.END)
  c_entry.insert(0, (float(f_entry.get()) - 32) * 5 / 9)
def c_to_f():
  f entry.delete(0, tk.END)
  f_entry.insert(0, float(c_entry.get()) * 9 / 5 + 32)
root = tk.Tk()
tk.Label(root, text="Fahrenheit").grid(row=0, column=0)
tk.Label(root, text="Celsius").grid(row=0, column=1)
f_entry = tk.Entry(root)
c_entry = tk.Entry(root)
f_entry.grid(row=1, column=0)
c_entry.grid(row=1, column=1)
f_entry.insert(0, "32")
c_entry.insert(0, "0.0")
tk.Button(root, text=">>>", command=f_to_c).grid(row=2, column=0)
tk.Button(root, text="<<<", command=c_to_f).grid(row=2, column=1)
root.mainloop()
```