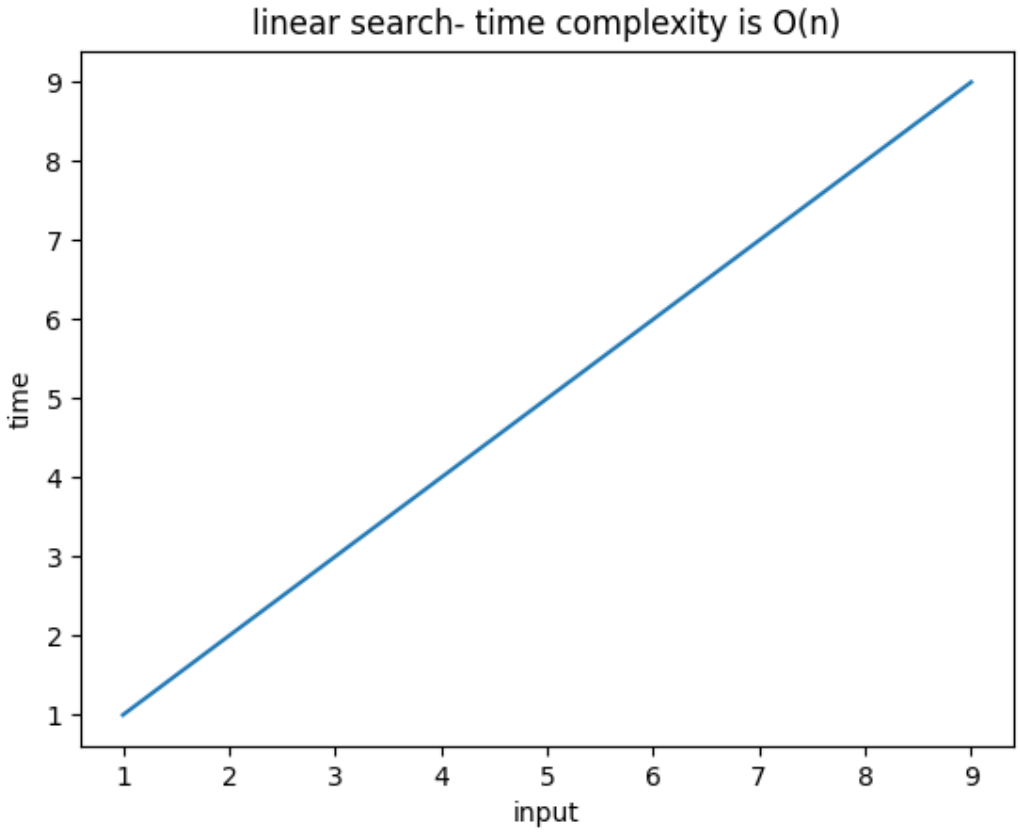
Liner Search Graph

```
import matplotlib
import matplotlib.pyplot as plt
matplotlib.use('TKAgg')

x=list(range(1,10))
plt.plot( *args: x ,[y for y in x])
plt.title("linear search- time complexity is O(n)")
plt.xlabel("input")
plt.ylabel("time")
plt.show()
```

Output: -

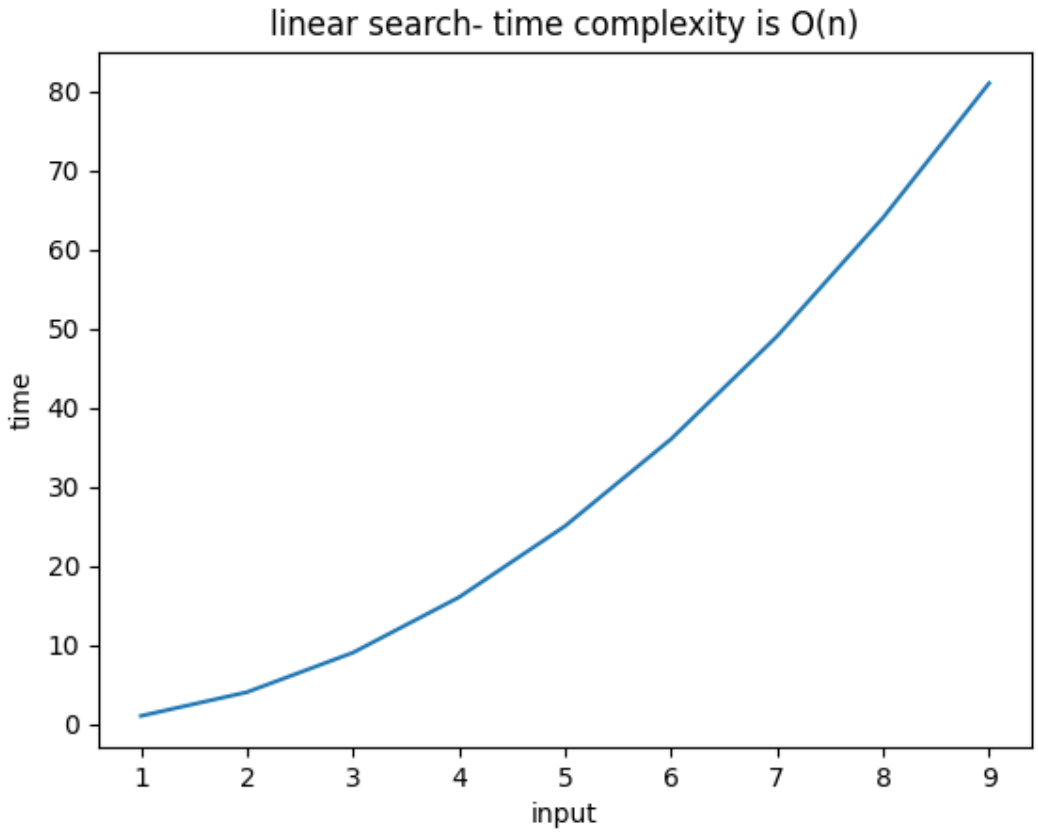


Binary Search Graph

```
import matplotlib
import matplotlib.pyplot as plt
matplotlib.use('TKAgg')

x=list(range(1,10))
plt.plot( *args: x ,[y*y  for y in x])
plt.title("linear search- time complexity is O(n)")
plt.xlabel("input")
plt.ylabel("time")
plt.show()
```

Output: -

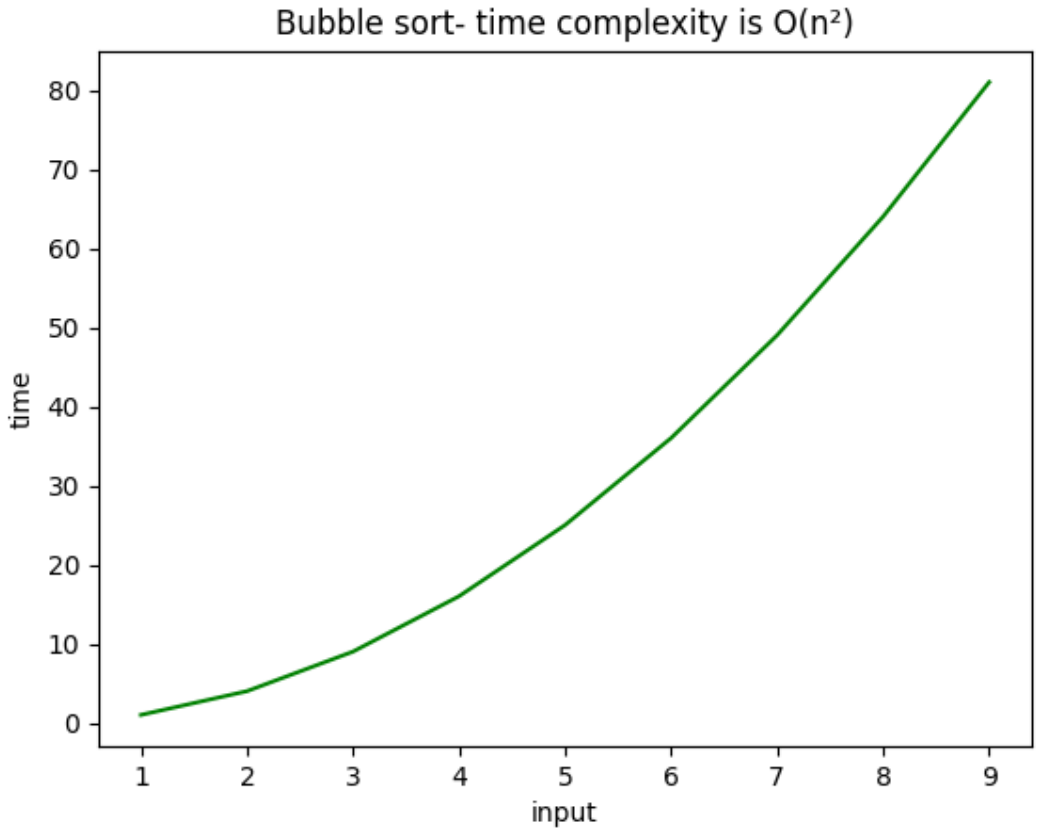


Bubble Sort Graph

```
import matplotlib
import matplotlib.pyplot as plt
matplotlib.use('TKAgg')

x=list(range(1,10))
plt.plot( *args: x,[y*y for y in x], color='green')
plt.title("Bubble sort- time complexity is O(n\u00b2)")
plt.xlabel("input")
plt.ylabel("time")
plt.show()
```

Output: -

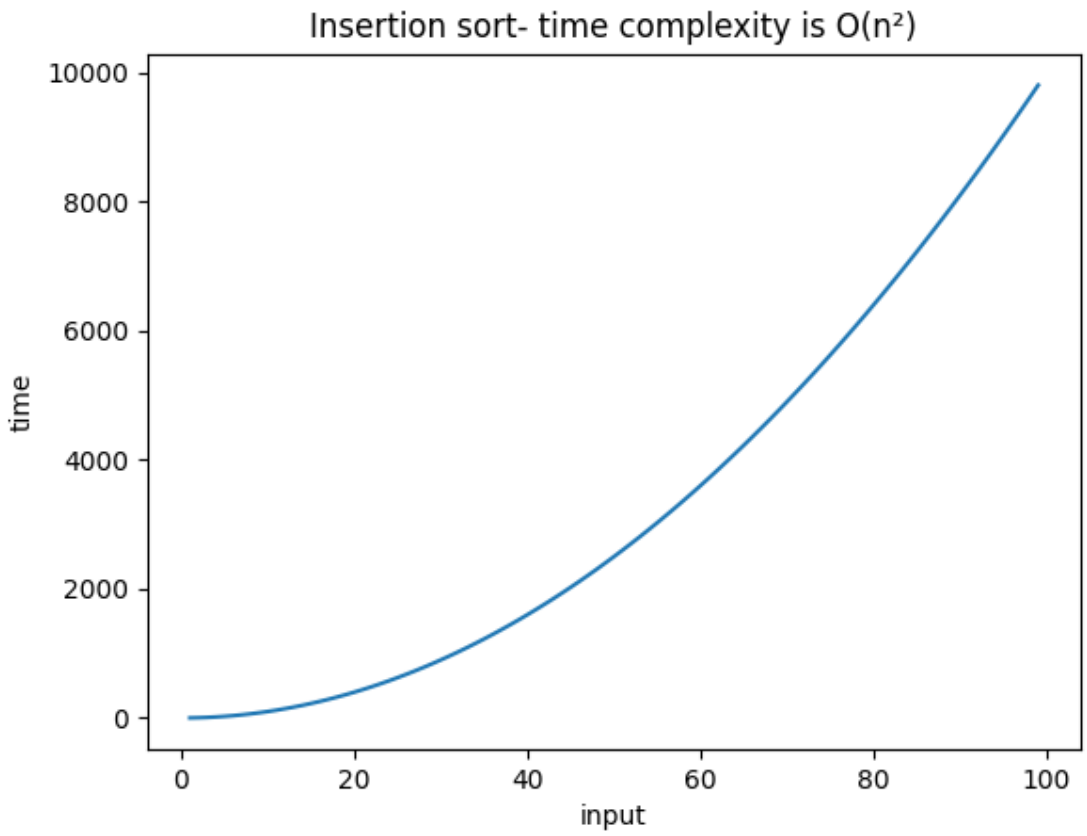


Insertion sort Graph

```
import matplotlib
import matplotlib.pyplot as plt
matplotlib.use('TKAgg')

x=list(range(1,100))
plt.plot( *args: x ,[y*y for y in x])
plt.title("Insertion sort- time complexity is O(n\u00b2)")
plt.xlabel("input")
plt.ylabel("time")
plt.show()
```

Output: -



Selection Sort Graph

```
import matplotlib
import matplotlib.pyplot as plt
matplotlib.use('TKAgg')

x=list(range(1,10))
plt.plot( *args: x ,[y*y for y in x])
plt.title("selection sort- time complexity is O(n\u00b2)")
plt.xlabel("input")
plt.ylabel("time")
plt.show()
```

Output: -