The idea behind the *insert* method is to place each item into a linked list so that all items in the linked list will remain in sorted order. Let’s deal with the following text file:

```
3
7
5
```

Recall that our linked list starts off with the dummy node:

Inserting: 3
1. Start off with two node references, a and b.

2. Notice that b points to null, so we’re at the end of the list. We’ll stop here.
3. Place 3 between a and b, and update last if needed.
Inserting: 7
1. Start off with two node references, a and b.

```
  first          last
   ↓        ↓
dummy → 3 → null
     ↓      ↓
a       b
```

2. Find the right spot for 7.

```
  first          last
   ↓        ↓
dummy → 3 → null
     ↓      ↓
a       b
```

The value at b, 3, is less than 7, so move a and b forward.

```
  first          last
   ↓        ↓
dummy → 3 → null
     ↓      ↓
a       b
```

b is pointing to null, so we’re at the end of the list. We’ll stop here.

3. Place 7 between a and b, and update last if needed.

```
  first          last
   ↓        ↓
dummy → 3 → null
     ↓      ↓
a       b
```

```
  first          last
   ↓        ↓
dummy → 3 → null
     ↓      ↓
a       b
```

```
  first          last
   ↓        ↓
dummy → 3 → null
     ↓      ↓
    7       null
```

new node
Inserting: 5
1. Start off with two node references, a and b.

2. Find the right spot for 5.

   The value at b, 3, is less than 5, so move a and b forward.

3. Place 5 in between a and b, and update last if needed.

   The value at b, 7, is greater than 5, so we stop.