Lecture 8: approximating the square root
def find_startswith(lst, searchstr):
    for s in lst:
        if s.startswith(searchstr):
            return s
    return None

```python
def find_startswith(lst, searchstr):
    low = 0
    high = len(lst)−1
    while (low < high):
        mid = (high + low) // 2
        if lst[mid].startswith(searchstr):
            return lst[mid]
        elif lst[mid] < searchstr:
            low = mid+1
        else:
            high = mid−1
    return None
```
def sqrt_bisect(x, error=0.00001):
    low = 0
    high = x
    m = (low + high)/2
    while (abs(m**2 - x) > error):
        if (m**2 < x):
            low = m
        else:
            high = m
    m = (low + high)/2
    return m
Calculating Square Roots with Newton’s Method