6.5-6.

Each exchange operation on line 5 of Heap-Increase-Key typically requires three assignments. Show how to use the idea of the inner loop of Insertion-Sort to reduce the three assignments down to just one assignment.

Answer.

Heap-Increase-Key(A, i, key)

```
1   if key < A[i]
2       error "new key is smaller than current key"
3   while i > 1 and A[Parent(i)] < key
4       A[i] = A[Parent(i)]
5       i = Parent(i)
6   A[i] = key
```