Quiz 6

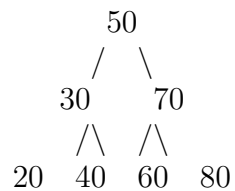**Name:** _____

NetID: _____

Question (7 points):

Write a method for `BinarySearchTree<V>`,

`private int thirdLargest(SortEntry<V> p)`

that returns the third largest key in the subtree rooted at `p`. You may assume that this subtree contains at least three elements.

Example:

Consider the following subtree rooted at node `p`:

```
            50
           /  \
         30    70
        /\    /\
      20  40 60  80
```

The keys in sorted (ascending) order are:

$$[20, 30, 40, 50, 60, 70, 80]$$

The **third largest** key in this subtree is `60`.

Answer: