69. Sqrt(x)

⤨ Pick One
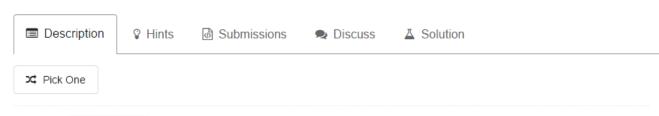
Implement `int sqrt(int x)`.

Compute and return the square root of *x*, where *x* is guaranteed to be a non-negative integer.

Since the return type is an integer, the decimal digits are truncated and only the integer part of the result is returned.

Example 1:

```
Input: 4
Output: 2
```

Example 2:

```
Input: 8
Output: 2
Explanation: The square root of 8 is 2.82842..., and since
             the decimal part is truncated, 2 is returned.
```

```java
public class L69 {
    /*
     * 查找平方根
     */
        public int mySqrt(int x) {
            if(x <= 1)
                return x;
            int left = 0;
            int right = x;
            while (left < right) {
                int mid = (left + right) / 2;
                //表示位于右半部分
                if(x / mid >= mid) left = mid + 1;
                else {
                    right = mid;
                }
            }
            return right - 1;
        }

        public static void main(String [] args) {
            System.out.println(new L69().mySqrt(8));
        }
}
```