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Assignment1

1, Using Intention-Revealing Names

```java
private int[] player1HouseArray = {0,4,4,4,4,4,4};
private int[] player2HouseArray = {0,4,4,4,4,4,4};
private int currentHouseIndex;
```

Alternative:

```java
private int[] p1Houses= {0,4,4,4,4,4,4};
private int[] p2Houses= {0,4,4,4,4,4,4};
private int curIndex;
```

In this example, I have made a decision using intention-revealing full names for the main variables, instead of choosing shorter names or abbreviations like "p1Houses, onP1Row,curIndex".
 therefore, we can understand why it exists, what it does, and how it is used without any comments.

Primary hypothesis: full English word identifiers lead to better source comprehension (than abbreviations or single letters)
Johannes C. Hofmeister, Janet Siegmund, Daniel V. Holt "Shorter identifier names take longer to comprehend" Empirical Software Engineering (2019) 24:417–443
https://doi.org/10.1007/s10664-018-9621-x (extension of 2017 paper)

2.Reusing names

```java
while(!checkGameOver(io)){
        int nSeedsLeft =0;
        ….
}
```

```java
private void spreadSeeds(int nSeedsLeft){
    while(nSeedsLeft>0 && !playerQuit){
    ….
    }
}
```

By reusing the same name, it makes it easier to find and handle the same part of calculations and logic.

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Alternative:

```
while(!checkGameOver(io)){
          int seedNum =0;

          ….

}
```

```
private void spreadSeeds(int nSeedsLeft){
     while(nSeedsLeft>0 && !playerQuit){

     ….

     }
}
```

3. Single-letter variables

```
for(int i=0;i<player1HouseArray.length; i++){
     if(player1HouseArray[i] != 0)
       player1HouseArrayClear= false;
   }
```

Alternative:
```
for(int a=0;a<player1HouseArray.length; a++){
     if(player1HouseArray[a] != 0)
       player1HouseArrayClear= false;
   }
```

The variable name 'i' is chosen instead of using variables a, b, c alternatively.
This decision increases the efficiency of comprehension as the variable name 'i' is from the knowledge base and this also can be an abbreviation for an index of player1HouseArray.