**Problem 2**

|  |  |
| --- | --- |
| **Num nodes *n*** | **Does there exist a red-black tree with *n* nodes, all of which are black?** |
| 1 | Yes |
| 2 | No |
| 3 | Yes |
| 4 | No |
| 5 | No |
| 6 | No |
| 7 | Yes |

**Problem 3**

|  |  |
| --- | --- |
| **Num nodes *n*** | **Does there exist a red-black tree with *n* nodes that has exactly one red node?** |
| 1 | No |
| 2 | Yes |
| 3 | No |
| 4 | Yes |
| 5 | Yes |
| 6 | No |
| 7 | No |