**TEST CASE 1**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 6 | YES |

**TEST CASE 2**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 28 | YES |

**TEST CASE 3**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 496 | YES |

**TEST CASE 4**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 8128 | YES |

**TEST CASE 5**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 33550336 | YES |

**TEST CASE 6**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 0 | NO |

**TEST CASE 7**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 8589869056 | YES |

**TEST CASE 8**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 100000000000 | NO |

**TEST CASE 9**

| **INPUT** | **OUTPUT** |
| --- | --- |
| -496 | NO |

**TEST CASE 10**

| **INPUT** | **OUTPUT** |
| --- | --- |
| 137438691328 | YES |

**TEST CASE 10**

| **INPUT** | **OUTPUT** |
| --- | --- |
| -8589869056 | NO |