BB bugs are shy creatures that love to make mischief. Their favourite trick is to dig holes in the playing field. After 10 holes were found, the exterminator was called in. That's YOU!

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  | $B B$ |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  | he BBL | in is in <br> th and | the $N$ dwest | $\begin{aligned} & \text { Nquad } \\ & \text { of } J 4, \end{aligned}$ | rant: <br> which |  |  |  |
| 5 |  |  |  | was Pel | 's first | guess. |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  | J4 |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
|  | A |  | C | D | E | F |  | H | I | J |  |

- Draw a diagram of the field on square grid paper, something like the one on the left.
- Get your classmate to "hide" the BB bug by writing its grid reference on a piece of paper.
- Name a square to guess where the bug is hiding.
- If your guess is correct, your classmate will tell you.
- If your guess is not correct but is in the same vertical or horizontal line as the BB bug, your classmate will give the direction (for example, north).
- If the BB bug is not directly north, south, east, or west, your classmate will give you the quadrant, measured from your guess.
- Guess again.

When you have found the BB bug, swap roles. You hide it, and your classmate will try and find it in fewer turns than you took.

Here is Joshua's record of Pele's guesses:

| Pele's guesses |  |  |
| :---: | :---: | :--- |
|  | Guess | Direction |
| 1. | I4 | NW |
| 2. | D11 | SE |
| 3. | 68 | W |
| 4. | B8 | E |
| 5. | E8 | Boom! |

