

# Oracles

## Practice Questions

Is the following game an oracle game?

Hotter / Colder:

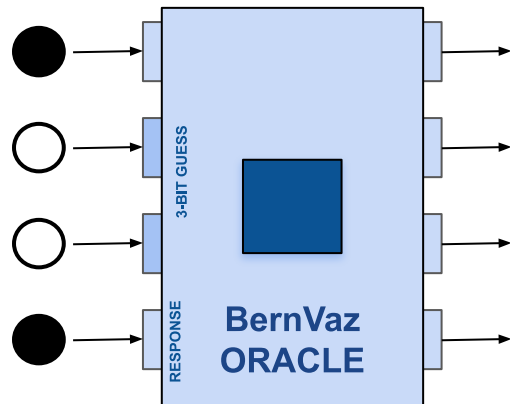
One person (the hider) hides something in a room. The other person (the searcher) tries to find it. Each time the searcher takes a step, the hider says “hotter” if they stepped towards it, “colder” if they stepped away from it, and stays silent if there was no clear change. In addition, they may say something like, “you’re very cold” or “you’re very hot” to indicate absolute distance from the hidden object. The goal is to find the item in as little time as possible.

Is the following game an oracle game?

Red light / Green light:

One person is the “traffic light” and stands just behind the finish line. The rest of the players line up on the starting line, which is parallel to the finish line. The traffic light yells “Green light!” and everyone runs towards the finish line. Then the traffic light yells “Red light!” and everyone must freeze. Anyone who doesn’t freeze immediately or loses balance or moves in any way during the red light is sent back to the starting line. The traffic light then yells “Green light!” again. This continues until a person wins by crossing the finish line. The goal is to be the first person to cross the finish line.

The secret code is 101. What is the output of this query?



- a. ☒ ☐ ☐ ☐ ☒
- b. ☒ ☐ ☐ ☐ ☐
- c. ☒ ☐ ☒ ☒ ☒
- d. ☒ ☐ ☒ ☐ ☐