

A Magic 8 Ball is a toy that claims to predict your fortune by giving an answer when you shake it and ask a question (e.g. “Will I get a high score on the exam?”). The possible types of answers are:

- positive (e.g. “It is certain”)
- negative (e.g. “My sources say no”)
- noncommittal (e.g. “Try again later”)

In expectation, how many times do you need to ask the Magic 8 Ball a question before you get a positive answer?

*(Note: there is a Magic 8 Ball at the front of the room if you would like to give it a try!)*