We Need One Bit Pattern for Each Possible Thing

Trick question: How many bits do we need
to represent two "books"?

- **The Collected Works of Shakespeare**
- **ECE101 slides by Roy Choudhury & Lumetta**

- 2 different books
- so **we need only 1 bit!** ($2^1 = 2$ bit patterns)

What matters is the **number of things**,
not what those things are.