Simulating Random Phenomena
Announcement

- Project 1 Checkpoint on Tuesday.

- No homework today (but there will be homework next Friday). Instead:
  - Read the text
  - Use the Interact feature and run the live notebooks; experiment on Python Playground
  - Summarize the concepts, not just the code
Simulation

Using a computer to re-create random phenomena
Random Selection

np.random.choice
- Selects at random
- with replacement
- from an array
- a specified number of times

np.random.choice(array_name, sample_size)
Conditional Statement

```python
if <if expression>:
    <if body>
elif <elif expression 0>:
    <elif body 0>
elif <elif expression 1>:
    <elif body 1>
...
else:
    <else body>
```
for Statement ("loop")

for item_name in sequence:
    body

For example, np.arange(5)
Caution ...
How many heads in 100 tosses?

50???

(Demo)
Monty Hall Problem