Calculating interest

- Notice that these two calculations give different answers

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How many flips for 10 heads?

- Need to count two things – number of flips, number of heads so far.
- Use a while loop. When should it stop?
- What should it do on tails?
- What should it do on heads?

while loop with continue

```python
while heads < 10:
    ....
    if......:
        continue
    ....
```

- When it hits the continue statement, it jumps back to the top of the loop, and continues running
- Different from break, which stops the loop
- Continue just stops this iteration.

Upcoming Events

- Assignment due Tues night
- Midterm Friday
- Review in class on Wednesday
- BRING A SCANTRON 2000 FORM
- You can buy them at the Bookstore
**Iteration**

- Means do something over and over again.
- While loops iterate the block under the while.
- Each time through the block is an iteration.

**continue statement**

```python
while heads < 10:
    coin = randrange(0,2)  # integer, either 0 or 1
    flips = flips + 1
    if coin == 1:  # tails - ignore it
        continue
    heads = heads + 1
```

**How many flips do we think we need?**

- How many do we need to get one heads?
- So how many do we need for 10 heads?
- Let's see what we get....

**Nested loops**

```python
while iterations < 10000:
    .......
    .......
    while heads < 10:
        .......
        .......
    .......
```

---

- How many do we need to get one heads?
- So how many do we need for 10 heads?
- Let's see what we get....