PFTD: Review, Lab, Transform

- Can a loop be in the body of another loop?
  - Are there constraints in what code goes where?
  - See, e.g., SandwichBar APT and Poker-dealing later today
  - Sometimes putting loop in another function helps
    - Conceptually simpler than nested loops

- Reading and writing from and to files
  - What are functions for doing this?
  - How do we use them?

Getting started with code/assignments

- Understand what the code/assignment is about
  - What's going on with Transform? What happens?
  - Can we run it to test it? What are the first, second steps?

- Understand parts of the code given to you
  - You don't need to understand everything, why?
  - You could try to understand everything, why?

- Using piglatin, rot13, writing to files, transforming
  - Lots of parts, where to start?
  - Tell you or let you figure this out...

Statistical Analysis of Poker Hand

- How do we represent cards? Deck? Suit? Rank?
  - What is a card?
  - What can you do with a card?
  - How will we represent a hand?
  - Keep things simple: lists help!

- How do we 'create' a deck
  - Number of cards?
  - Code for creating cards?
  - Loop over suits/ranks
  - Debugging assistance!

Coping with cards: Cardtester.py

- Dealing a deck of cards in Python: Cardtester.py
  - In code below, what is a deck?
  - What is a card?
    - What's easier to understand: [0,1] or "ace of hearts"
  - How do nested loops work?
  - Why do we use strings? Lists? Tuples?

```python
def getDeck():
    d = []
    for rank in range(0,13):
        for suit in range(0,4):
            d.append([rank,suit])
    return d
```