questions (for you):
what is open source?
what is a generator?
what is a type?
what does is a disassembler or a decompiler?
what is a python sprint?
How to be more effective with functions (Bret Slakin)

Generators instead of returning lists

- Less noise, easier to read
- File can be of arbitrary size
- Memory problems are gone
- Question should be "Why return a list?"
  or "Why not define a generator?"

http://www.effectivepython.com/2015/04/10/pycon-montreal/
Diversity

- Python in Iraq: 50% women
- No women at the language summit:-(
- Want at least two female core devs next year
- First q from a woman or girl, then alternate
Disassembler of Python

```python
>>> def test():
...   a = 10
...   b = 20
...   return a + b
...

>>> import dis
>>> dis.dis(test)
>>> dis.dis(test)
 2           0 LOAD_CONST               1 (10)
3 STORE_FAST               0 (a)
 3           6 LOAD_CONST               2 (20)
9 STORE_FAST               1 (b)
 4          12 LOAD_FAST                0 (a)
15 LOAD_FAST               1 (b)
18 BINARY_ADD
19 RETURN_VALUE

>>> help(dis)
```
Second Guido Keynote (Type Hints)

https://www.youtube.com/watch?v=2wDvzy6Hgxg
https://github.com/ambv/typehinting

Type hints without magic

- Use classes as type hints:
  - class Chart:
    - def setlabel(self, x: float, y: float, name: str) -> bool: ...
    - def getnearest (self, x: float, y: float) -> str: ...
  - def make_label(c: Chart, a: str) -> bool:
    return h.setlabel(a)
  - def get_labels(c: Chart, points: list) -> list:
    return [c.getnearest(x, y) for x, y in points]
New to Sprinting?
The sprints are a key part of PyCon, giving groups in the Python community valuable space right after the conference to bring developers together to work on projects in person. The sprints also give members of the Python community the valuable opportunity to work with and learn from the developers and maintainers of the software they use every day.

This year we have added features to make the sprints more welcoming to first-time sprinters:

"How to Contribute to a Sprint" - Shauna Gordon-McKeon of Open Hatch will present a workshop for first-timers. This session will help bring you up to speed on what to expect while sprinting, how to participate, and what projects are particularly newcomer friendly. We'll have soft drinks and snacks, and once we're done, we'll organize groups to go out to dinner, so you can connect with your fellow first time sprinters and some people from the sprints. If you're interested, please visit https://events.openhatch.org/events/5 to let us know.

Second, we'll be working with the sprint leaders to identify the sprints that are most newcomer friendly, and giving them whatever advice we can help them welcome newcomers to their projects.

Finally, we'll have a help table set up for at least the first day of the sprints, to give you any help with the sprints you might need, from installing and using common tools to suggestions on how to get the most out of sprinting or just talking about how it's going.
Sprints

(an opportunity to learn to be a better programmer and contribute to open source)
what is open source?
what is a generator?
what is a type?

what does is a disassembler?
what is a python sprint?