Announcements

- HW1 is posted
due Sat. by 11:59 pm
Last time

- cs1 graphics - a set of drawing routines for python

- Canvas
- Rectangle
- Circle
- Methods to change these
  - set Fill Color
  - move
  - add
  etc.
Today:
Open your picture.py from Friday (or start a new one)

We'll modify this picture and learn about other options
Path

Similar to polygon - connects along points

Here - we can add sun rays or smoke from chimney

Sun is centered at 100,100, radius 30
Depth

By default, everything has depth = So smaller depths will be in front

Ex: add grass + draw it behind everything else
add window & draw it in front of house
Rotating

Example:

\[
diamond = Square\(\quad (40, \ Point(200, 200))\)
\]

\[
diamond \cdot \text{rotate}(20)
\]

\[
\rightarrow
\]

\[
block = Square\(\quad (40, \ Point(100, 100))\)
\]

\[
\text{block, adjust Reference (}-20, \ 20\)
\]

\[
\rightarrow
\]
Scaling

Any object can be scaled.

diamond $\times 2$ (multiplicative)$\rightarrow$ twice as big

diamond scale ($0.5$)$\rightarrow$ half as big
Cloning

Can copy any drawable object.

Note: Not automatically added to scene!

Ex: Add a second tree
Today
Work on your scene for the HW
Suggestion: Make a new file, but keep this one open as a reference.

Tomorrow: Layers + animations