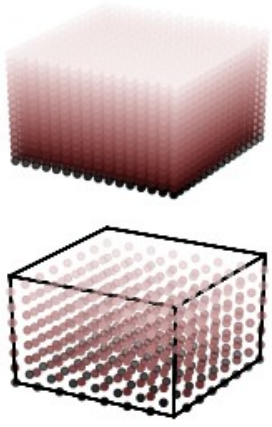
Modeling a "Heatsink" As a Cube

The Heatsink

- First try: heatsink as brick or cube of material
  - Resolve into a grid
- Initial conditions:
  - All points initialized to "cool temperature"
  - Top, sides, held at cool temperature
  - Bottom held at higher temperature, plus "hot spots" at random positions



Sidebar: visualize the block with matplotlib

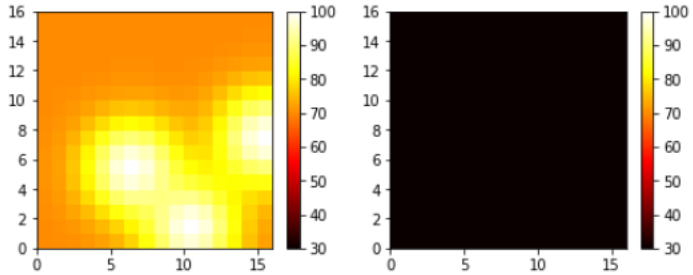
```
import matplotlib.pyplot as plt
from matplotlib import cm
from matplotlib.colors import Normalize

fig, (ax0, ax1) = plt.subplots(ncols=2, figsize=(8, 3))
normal = Normalize(tmin,tmax)

pcm = ax0.pcolormesh(heatsink[:,:,0], cmap=cm.hot, norm=normal)
plt.colorbar(pcm, ax=ax0)

pcm = ax1.pcolormesh(heatsink[:,:,-1], cmap=cm.hot, norm=normal)
plt.colorbar(pcm, ax=ax1)

plt.show()
```



matplotlib Display of Layers