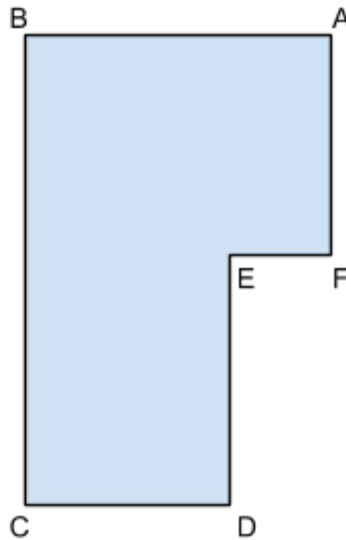


## Surveying like an Egyptian

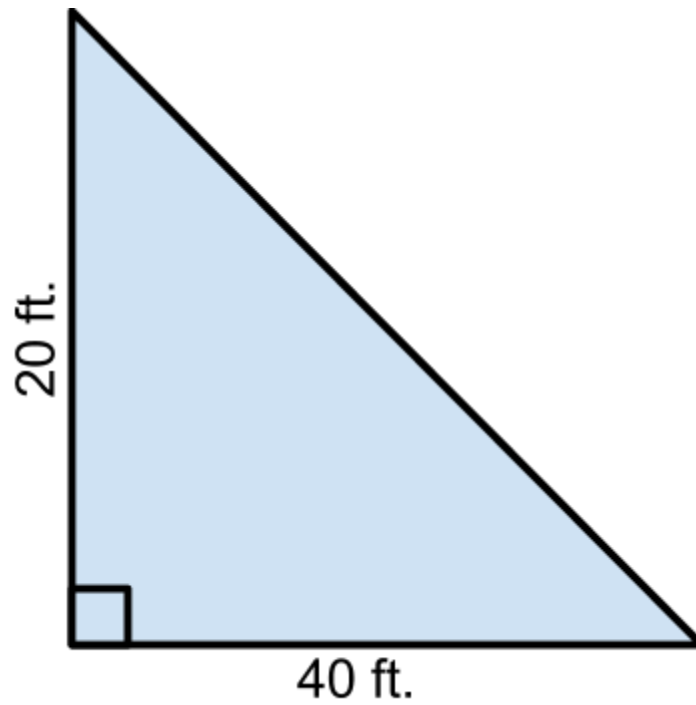
In Ancient Egypt farmers used the tools of geometry to determine the boundaries of their farm. One of these tools was the Pythagorean Theorem, because it allowed them to create right angles. You will practice your surveying skills like the Ancient Egyptians to lay the foundation of a new building here on campus.



- Consult the building plans provided to find the length of each wall.
- Convert all the distances from the plans into meters.
- Label the diagram above with correct sidelengths in meters.
- Find the diagonal distances (in meters) below using the Pythagorean Theorem.
  - $AC =$
  - $BD =$
  - $CE =$
  - $DF =$
  - $EA =$
  - $FB =$
- Use the cones to lay the foundation of the building.

## Practice

Use three cones to create an exact right angle as below. Remember, don't trust your eye too much!



Write three or four sentences about how you got your right angle as exact as possible.