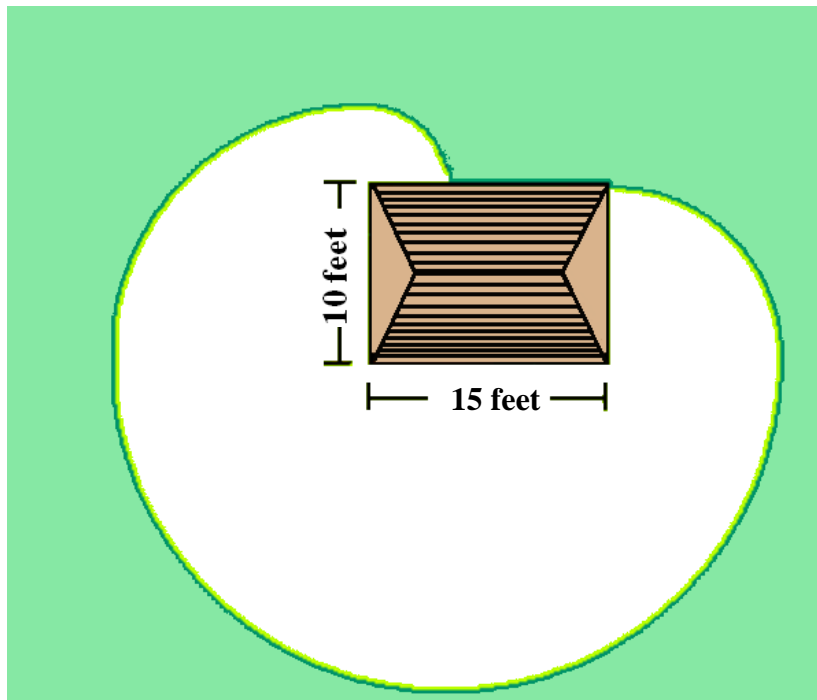


Stuart tethered his goat to one end of a 20-foot length of rope and attached the other end of the rope to a hook fixed to the side of the shed.

When he came back the goat had eaten all the grass within its reach. Here is a picture showing the region grazed by the goat:



Where did Stuart fix the rope?

What was the area grazed by the goat?

Could the goat have eaten more grass if the rope had been attached to a different point on the shed?

Experiment with different lengths of rope.

Where should the hook be positioned each time to allow the goat to eat the maximum amount of grass?