



Problem of the Week

Problem B

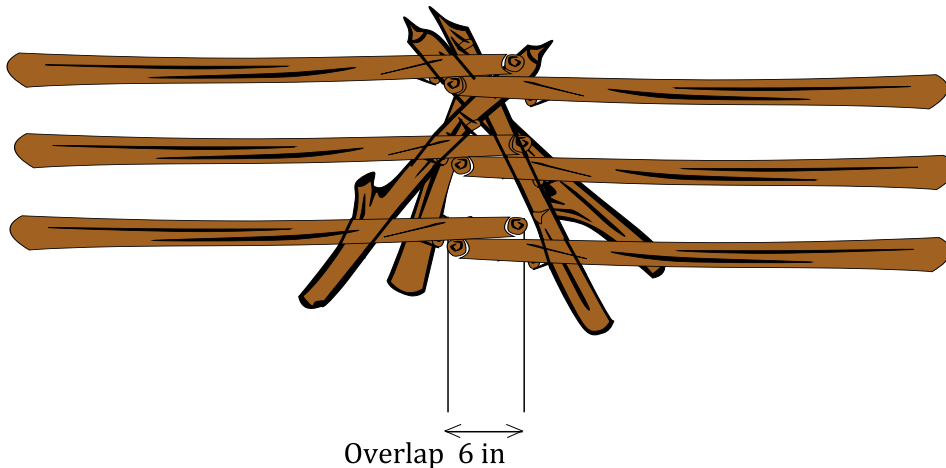
Fenced In!

Cassie is building a cedar split-rail fence around her horse paddock, such as the one illustrated in the photo.

The three rails are laid horizontally, with the top ones supported in the notch of each four-post bundle, and the other two suspended by wires above them. Where they meet, each pair of rails overlap somewhat to provide stability for the fence.



- Suppose the 3 rails in Cassie's fence have a 6 inch ($\frac{1}{2}$ ft) overlap, as shown in the diagram below. If she needs a fence 105 ft long, and each of her cedar rails is 10 ft long, how many rails will she need in total for the horizontal spans of her fence?
- Cassie also needs to construct the four-post bundles for her fence. If the posts are to be 5 ft high in each bundle, how many cedar rails will she need for the bundles?
- Suppose instead that Cassie can get cedar rails 13 ft long. How many of these rails would she need in total to construct her 105 ft fence?



STRANDS MEASUREMENT, NUMBER SENSE AND NUMERATION

