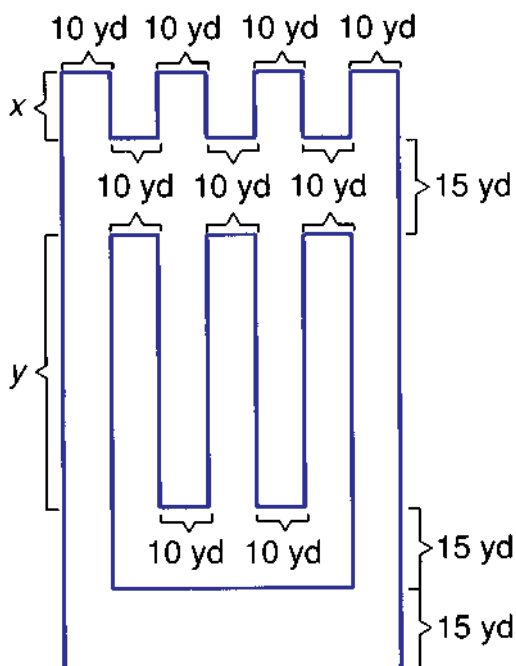


### The Problem

The Big Spring School Board wants to build two separate tracks, each 440 yards long, for the ninth- and tenth-grade students. However, they have only a limited amount of land available. They finally decide to build the track for the ninth grade students *inside* the track for the tenth grade students. Their athletic director presents the following diagram for their consideration. Determine the length of  $x$  and  $y$  so that each track is 440 yards long.



### Strategies and Hints

1. How are the lengths of  $x$  and  $y$  related?
2. Make charts for three more possible sets of tracks.  
Consider the lengths of both the inside and outside tracks and the given distances when making your new charts.
3. Writing an equation for each track would be useful.