



A nobleman has challenged his gardener with a task to plant ten shrubs of roses in his garden so that the shrubs would form five lines with four shrubs in every line. The gardener presented his preliminary plan in the form of five-point star as is shown in the illustration, adding paths between the roses. Looking at the plan the nobleman has pointed to the fact that every rose in it could be accessed without crossing any path in the garden. Thus, he complicated the task for the gardener ordering to improve the plan so that as many roses are "hidden behind" the paths as possible. In other words in order to get the access to such a rose one should cross a path. At first the gardener thought this was impossible but later he discovered the scheme which allowed him to successfully complete the task.

Can you figure out what was the final scheme and what is the greatest possible number of roses which can be "hidden behind" the paths?

