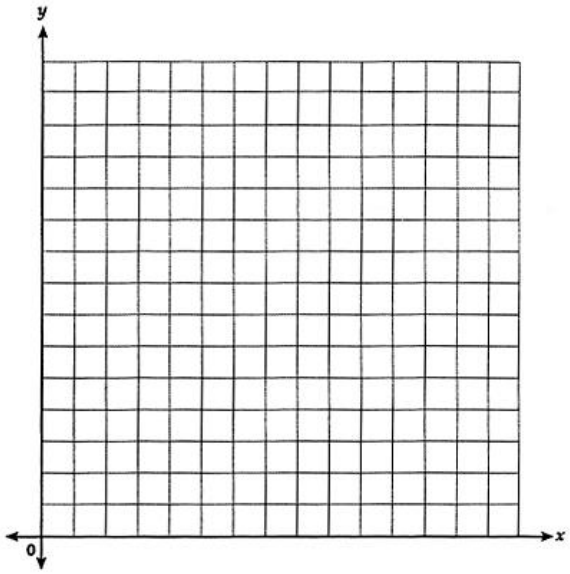
PTA practice

Students in the Hamilton High School science club faced this kind of problem when they tried to raise $300 to buy a special eyepiece for the high-powered telescope at their school. The school PTA offered to pay club members for an after-school work project that would clean up a nearby park and recreation center building.
Because the outdoor work was harder and dirtier, the deal with the PTA would pay $20 for each outdoor worker and $10 for each indoor worker. The club had 20 members eager to work on the project. But, most members would prefer the easier indoor work.

a. Write a system of linear equations in which one equation expresses the new conditions about payment and the other shows the new number of workers.

b. Estimate the solution for this system of equations by using graphs of the two equations. Then check your estimate.