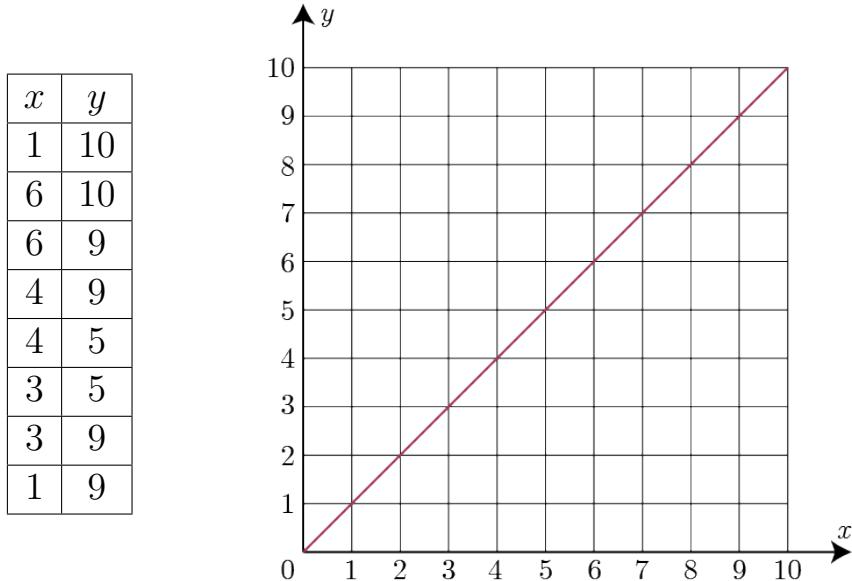


Problem of the Week

Problem B

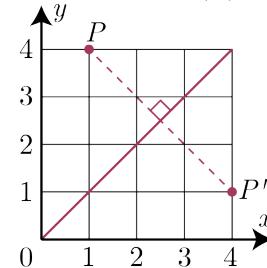
A Capital Transformation

(a) Plot the given points on the grid, then connect the points in the order they appear in the table. Finish by connecting the last point with the first.



(b) Reflect each of the points you plotted in part (a) across the diagonal line in the grid above, then connect the reflected points like you did in part (a).

TIP: When you reflect a point across a line, the reflected point lies on the opposite side of the line, the same perpendicular distance away as the original point. This is shown in the diagram where P is the original point and P' is its reflection across the diagonal line.



(c) How do the coordinates of each reflected point from part (b) compare with the coordinates of their original point?

(d) Starting with the original points, can you use 2 or 3 different transformations in a row to get the same final image you drew in part (b)? If so, explain the transformations you used.