



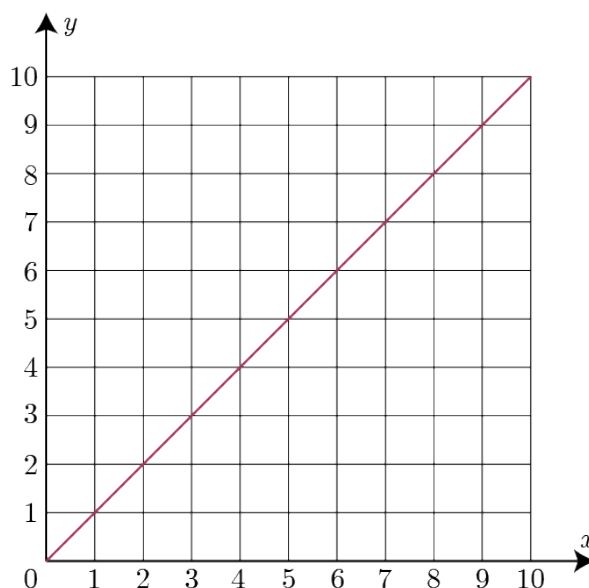
Problem of the Week

Problem B

A Capital Transformation

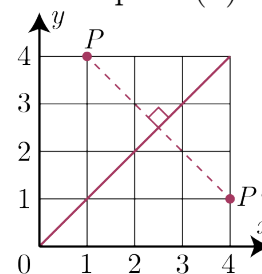
- (a) Plot the given points on the grid, then connect the points in the order they appear in the table. Finish by connecting the last point with the first.

x	y
1	10
6	10
6	9
4	9
4	5
3	5
3	9
1	9



- (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.