1. Construct the perpendicular bisector of the following line segment.
2. Construct the four perpendicular bisectors of the sides of the rectangle below.
3. Now construct the four perpendicular bisectors of the sides of the rectangle using the fewest arcs and lines. (The record: 3 arcs, 2 lines)
4. Construct a line perpendicular to the one below that passes through point P not on the line.

P

1. Construct a line perpendicular to $\overleftrightarrow{AB}$ through P, and another line perpendicular to $\overleftrightarrow{CD}$ also through P.

B

P

C

D

A

1. Construct a line perpendicular to the one below passing through P if it is on the line.

P

1. Construct a line parallel to the one below passing through the point P.

P

1. Bisect the following angle.
2. Bisect all four angles, using the fewest arcs and lines. (The record: 4 arcs, 2 lines)
3. The triangle in the upper left of the figure below has been reflected across a line into the triangle in the lower right of the figure. Use a straightedge and compass to construct the line across which the triangle was reflected.

