

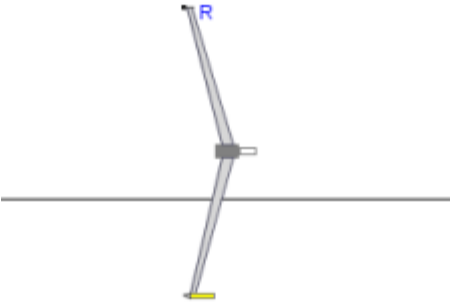
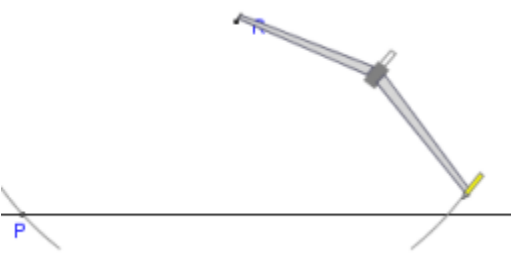
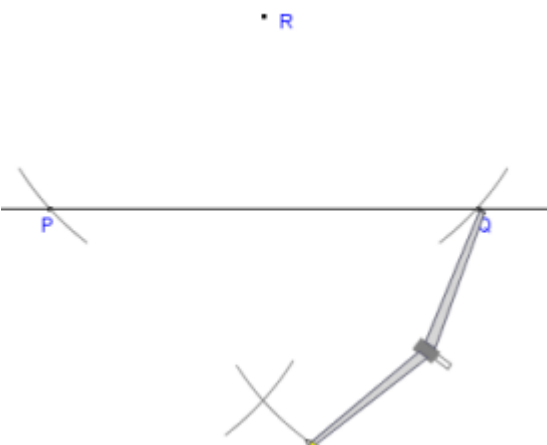
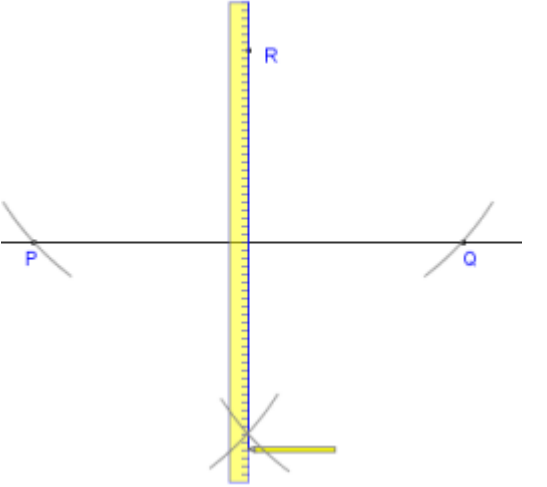


## Perpendicular Line given a line and a point not on the line

After doing this	Your work should look like this
<p>Start with a line and point R which is not on that line.</p>	
<p>Place the compasses on the given external point R.</p>	
<p>Set the compasses' width to a approximately 50% more than the distance to the line. The exact width does not matter.</p>	
<p>Draw an arc across the line on each side of R, making sure not to adjust the compasses' width in between. Label these points P and Q</p>	

After doing this	Your work should look like this
<p>At this point, you can adjust the compasses' width. Recommended: leave it as is.</p> <p>From each point P,Q, draw an arc below the line so that the arcs cross.</p>	
<p>Place a straightedge between R and the point where the arcs intersect. Draw the perpendicular line from R to the line, or beyond if you wish.</p>	
<p>Done. This line is perpendicular to the first line and passes through the point R. It also bisects the segment PQ (divides it into two equal parts)</p>	