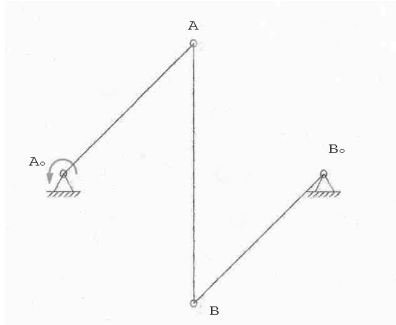


### Exercise 1.10:



<p>a) Graphic analysis of a double crank (anti-parallel)</p>	<p>b) Analysis using the PC-Program SAM 6.0</p>
<p>Please make a sketch on a sheet of paper (DIN A4) with the given coordinates:</p> <p><math>A_o</math> (0/50)  <math>A</math> (15/65)  <math>B</math> (15/35)  <math>B_o</math> (30/50)</p> <p>Start in the given position and show the positions of the mechanism every 45°-step. Discuss the movement of the coupler AB.</p>	<p>Create the anti-parallel double crank with the given coordinates (s. left). Use the <b>Input motion</b>:  Motion 360 [deg]  Time 0.1 [s]  Intervals 300 [-]  For the given <math>n = 10 \text{ s}^{-1}</math>, the time <math>T = 1/n = 0.1 \text{ s}</math>  Now calculate with the <b>Abacus</b> icon, <b>Node Data</b> click on point B <b>Absolute: <math>\sqrt{\text{Velocity}}</math></b> and animate the mechanism using the <b>Windmill</b> icon. Show the coupler curve of the points B using: <b>Display and Path</b>. Then show the Hodograph by using: <b>Display and Hodograph</b>. Look at the <b>Graph of Selected items</b>.</p> <p>Find the minimum point of velocity and the value of <math> v_{B,\min} </math> in [mm/s].  Discuss the graph of velocity <math>v_B</math>.</p>