## Exercise 1.6:

a) Graphic analysis of a windscreen wiper gearing (6-links)
b) Analysis using the PC-Program SAM 6.0


| a) Graphic analysis of a 6-link mechanism | b) Analysis using the PC-Program SAM 6.0 |
| :---: | :---: |
| Please make a sketch on a sheet of paper (DIN A4) with the given coordinates: <br> $\mathrm{A}_{\mathrm{o}}(0 / 0)$ <br> A (-15/15) <br> B (-60/-10) <br> $\mathrm{B}_{\mathrm{o}}(-45 / 15)$ <br> C (0/90) <br> D (-15/90) <br> $\mathrm{D}_{\mathrm{o}}(-60 / 15)$ <br> E (10/90) <br> F (10/150) <br> G (10/30) <br> Show the positions of the mechanism in the <br> BDC and TDC position. <br> Show the coupler curves of the points C and D. | Create the windscreen wiper gearing with the given coordinates (s. left). Some beams have to be connected with the icon Fix relative Angles. Take the preset Input motion, use the Abacus icon to calculate and animate the mechanism using the Windmill icon. Show the coupler curve of the points C and D by using: <br> Display and Path. <br> Discuss the movement of the wiper. |

Constrained eight-link chains $(F=1)$ with single turning joints have $g=10$ joints. Ten-link and more-link chains are known but not discussed in this course.

