every picture/.append style=remember picture, [scale=0.5] [line width=2pt] (-0.5.0) - (0.5.0) node [below right] bl [line width=1pt] (0,0) circle (3pt); [line width=1pt] (4,5) circle (3pt); [line width=1pt] (8,9) circle (3pt); [line width=1pt, name path=upper] (4.5) ... controls +(up:2cm) and +(right:1cm) ... (8.9); line width=1pt, name path=lower (0,0) ... controls +(up:1cm) and +(right:1cm) .. (4,5); [name intersections=of=upper and lower]; [line width=1pt] (intersection-1) circle (3pt): [line width=1pt] (intersection-1)