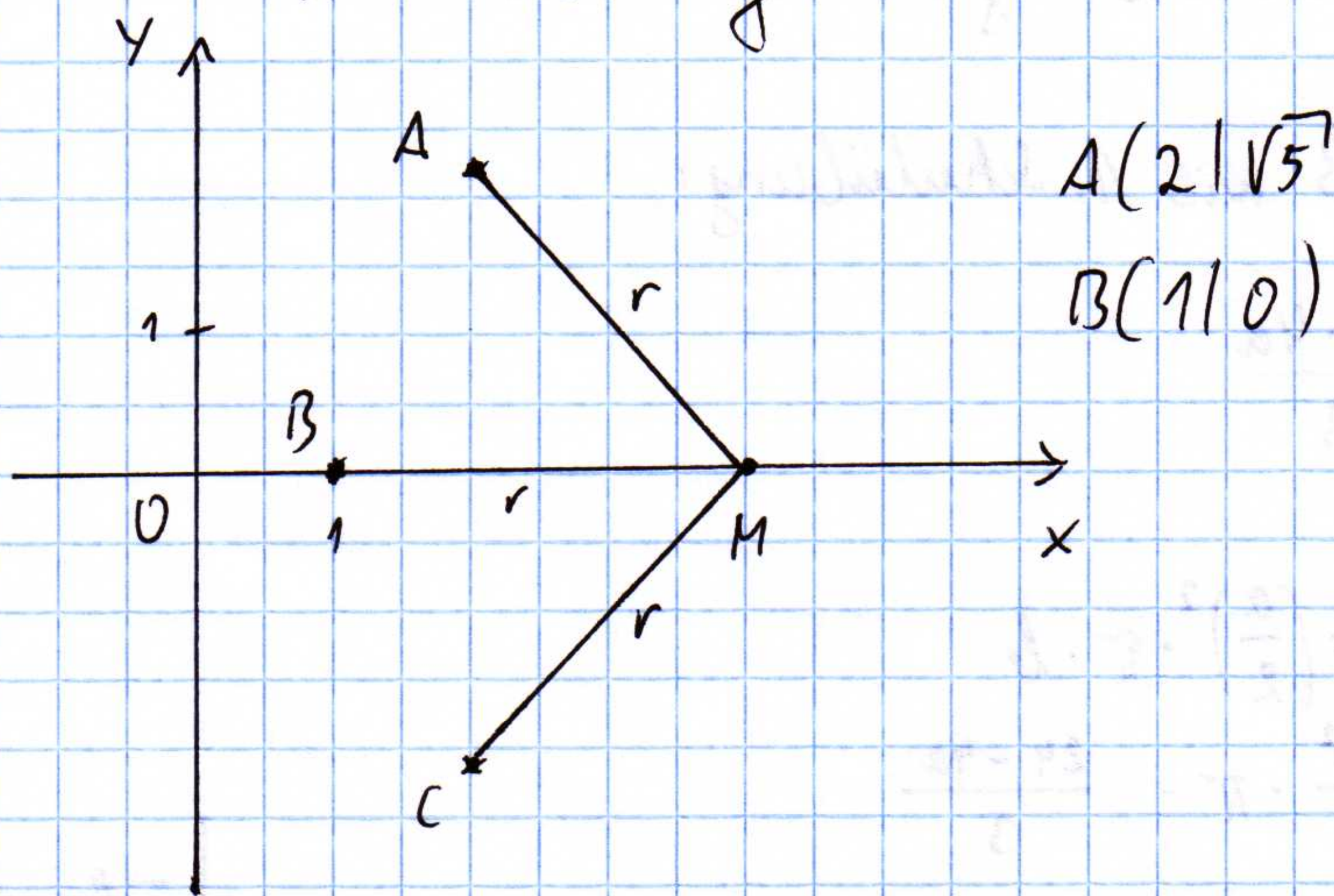


1. Hausübung



Wegen der symmetr. Lage von A und C bezügl. x-Achse
hat M die Koordinaten $M = (m_x | 0)$

$$|\vec{AM}| = \left| \begin{pmatrix} m_x - 2 \\ \sqrt{5} \end{pmatrix} \right| = \sqrt{m_x^2 - 4m_x + 4 + 5} = \sqrt{m_x^2 - 4m_x + 9} = r$$

$$|\vec{BM}| = \left| \begin{pmatrix} m_x - 1 \\ 0 \end{pmatrix} \right| = m_x - 1 = r$$

$$\sqrt{m_x^2 - 4m_x + 9} = m_x - 1 \quad |^2$$

$$m_x^2 - 4m_x + 9 = m_x^2 - 2m_x + 1$$

$$-2m_x = -8$$

$$m_x = 4$$

$$\underline{\underline{M = (4|0)}}$$