

$$e) \quad \tan \alpha^* = m_{AB} = \frac{1}{5}$$

$$\alpha^* = 11,31^\circ$$

$$\frac{\alpha}{2} = \frac{72,06^\circ}{2} = 36,03^\circ$$

$$\varphi = 36,03^\circ + 11,31^\circ = 47,34^\circ$$

$$m_{AM} = \tan \varphi = \tan 47,39^\circ = 1,09$$

$$A(-3|2) \in m_{AM}: \quad y = mx + t$$
$$-2 = 1,09 \cdot (-3) + t$$
$$t = 1,27$$

$$\Rightarrow m_{AM}: \quad y = 1,09x + 1,27$$

$$f) \quad -5x - 4 = 1,09x + 1,27 \quad (m_{[AB]} \cap m_{AM})$$

$$-6,09x = 5,27$$

$$x = -0,87$$

$$y = -5 \cdot (-0,87) - 4 = 0,35$$

$$\Rightarrow M(-0,87|0,35)$$

$$g) \quad \overline{AM} = \sqrt{(-0,87 - (-3))^2 + (0,35 - (-2))^2} = 3,17 \text{ LE}$$

$$A_R = \overline{AM}^2 \cdot \pi = 3,17^2 \cdot \pi = 31,57 \text{ FE}$$

$$\frac{12,37 \text{ FE}}{31,57 \text{ FE}} = 0,392 = 39,2\%$$