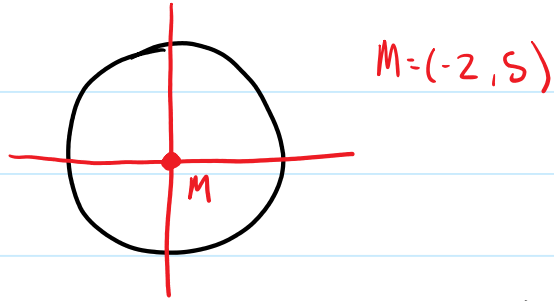


01) A) $x^2 + y^2 = 16$
 $(x^2 - 2) + (y^2 + 5) = 16$

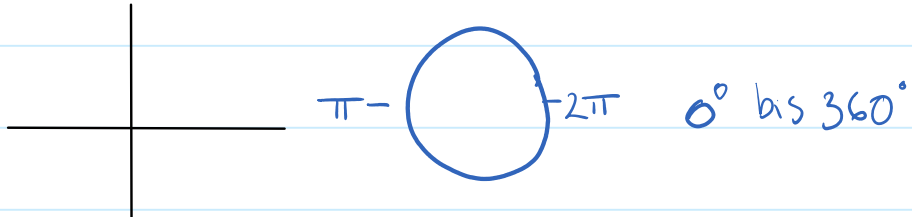


B) B1: $r(\varphi) = 1 + \sin\varphi$ ($0 < \varphi < 2\pi$)

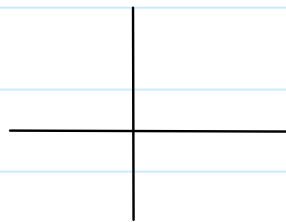
Polarkoordinaten:

$$\begin{pmatrix} r \\ \varphi \end{pmatrix} = \begin{pmatrix} \sqrt{x^2 + y^2} \\ \text{TAN}^{-1}\left(\frac{y}{x}\right) + \text{Quadrant} \end{pmatrix}$$

(kartesische Koordinaten)



B2: $r(\varphi) = e^{0,5\varphi}$ ($0 < \varphi < \pi$)



C) $(x^2 + y^2)^2 - 2xy = 0 \rightsquigarrow (x^2)^2 + 2(x^2)(y^2) + (y^2)^2 - 2xy = 0$
 $= x^4 + 2x^2y^2 + y^4 - 2xy = 0$

Polarkoordinaten: