

$x^2 + y^2 = 8cx \Leftrightarrow r^2 = 8cr \cos \theta \Leftrightarrow r^2 - 8cr \cos \theta = 0 \Leftrightarrow r(r - 8c \cos \theta) = 0 \Leftrightarrow r = 0$ or $r = 8c \cos \theta$. $r = 0$ is included in $r = 8c \cos \theta$ when $\theta = \frac{\pi}{2} + n\pi$, so the curve is represented by the single equation $r = 8c \cos \theta$.