$$\frac{(x - \mathtt{DX})^2}{\mathtt{AX}^2} + \frac{(y - \mathtt{DY})^2}{\mathtt{AY}^2} < 1$$
$$\&\& \ \min(\mathtt{DX1}, \mathtt{DX2}) < x - \mathtt{DX} < \max(\mathtt{DX1}, \mathtt{DX2})$$
$$\&\& \ \min(\mathtt{DY1}, \mathtt{DY2}) < y - \mathtt{DY} < \max(\mathtt{DY1}, \mathtt{DY2})$$