

Rita mängden

$$\{(x, y) \in \mathbb{R}^2 : x < y, x^2 + 4y^2 \leq 4\}$$

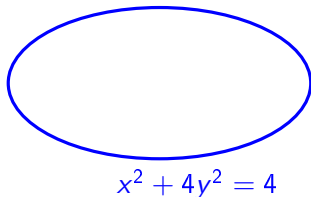
samt beskriv dess inre punkter, yttre punkter samt randpunkter. Är mängden öppen, sluten eller varken eller?

$M = \{(x, y) \in \mathbb{R}^2 : x < y, x^2 + 4y^2 \leq 4\} = M_1 \cap M_2$ där

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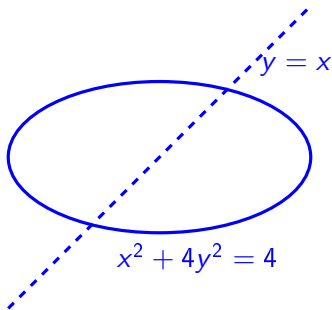
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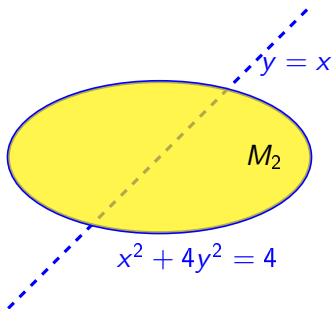
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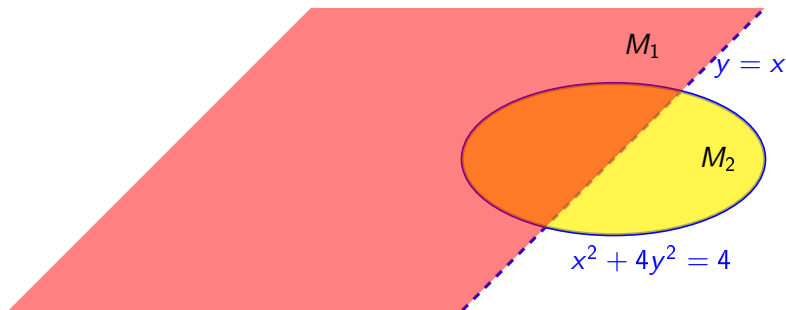
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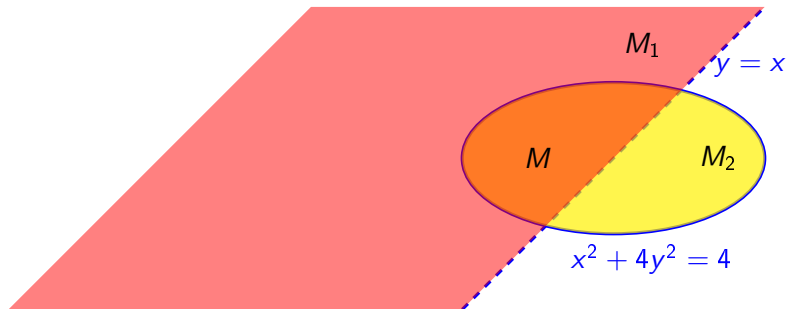
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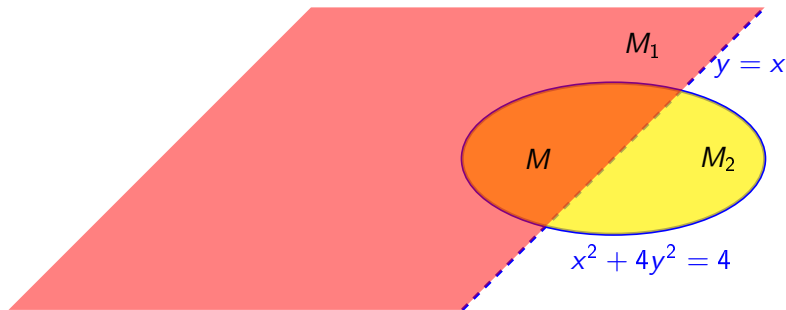
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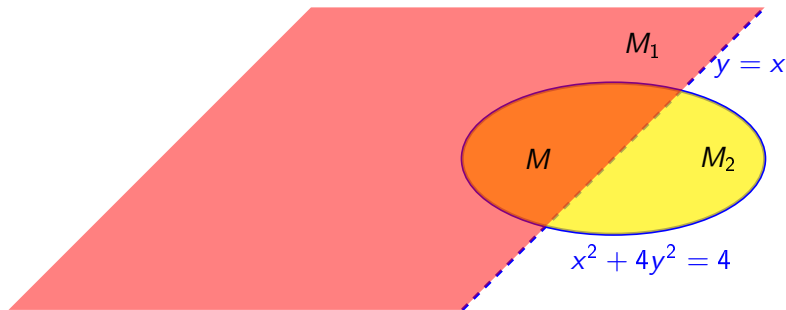
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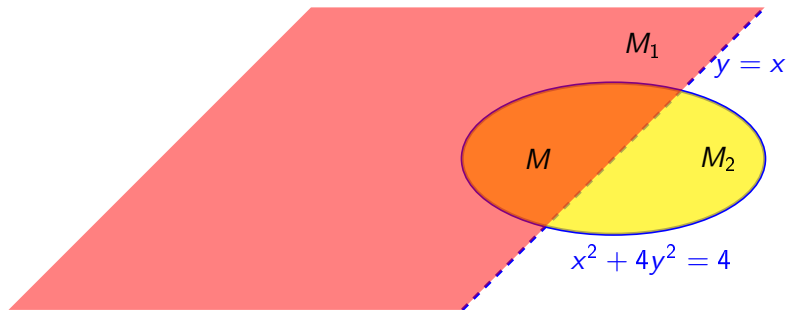
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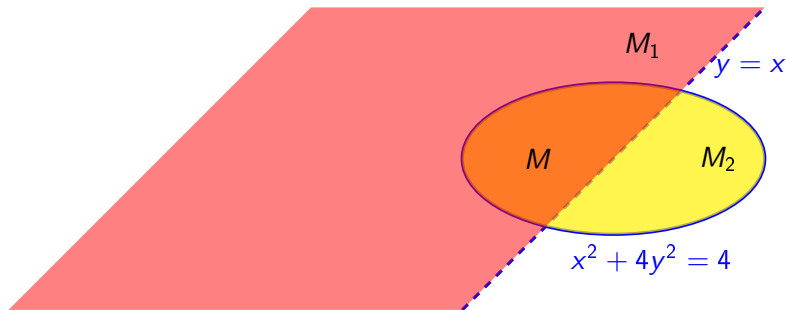


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$$\text{Yttre punkter: } \{(x, y) \in \mathbb{R}^2 : x > y\} \cup \{(x, y) \in \mathbb{R}^2 : x^2 + 4y^2 > 4\}.$$



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M är varken öppen eller sluten.