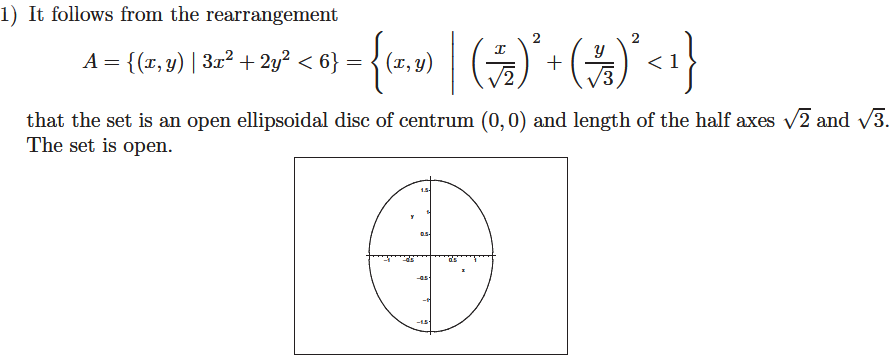
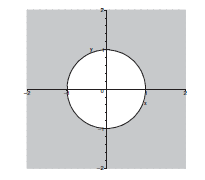
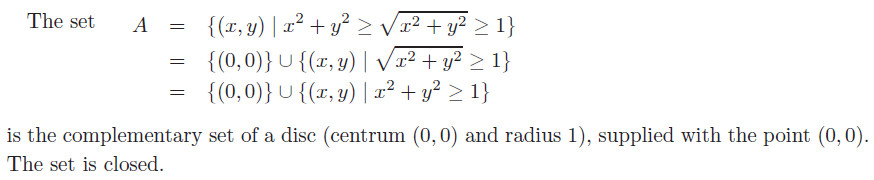
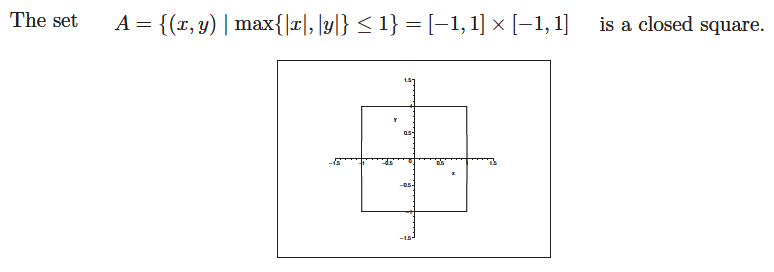
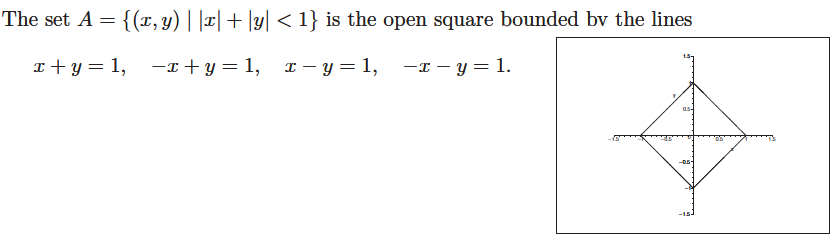
**Solution TD 0**

**Exercice 1.**  Calcul Direct

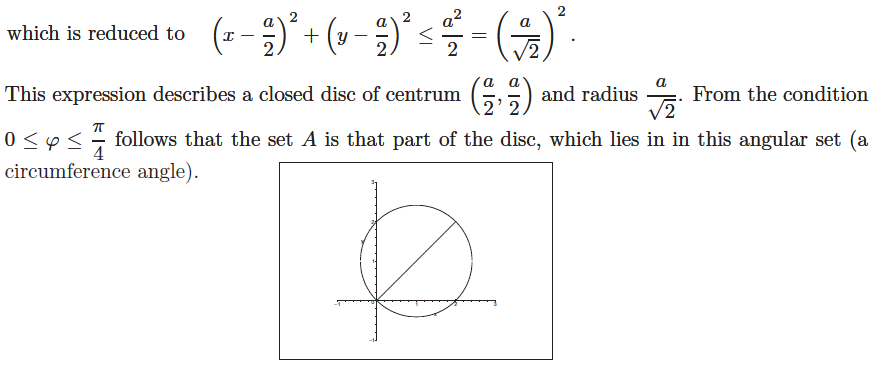
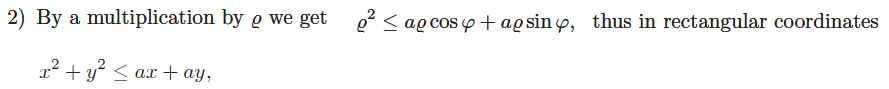
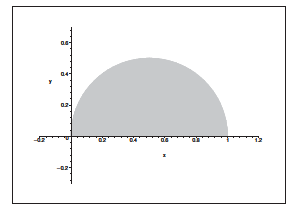
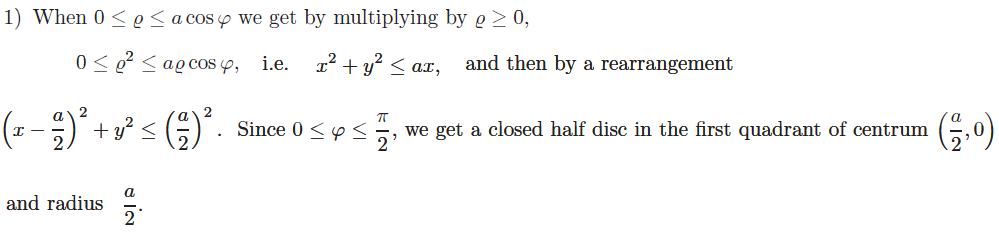
**Exercice 2. (A)** Draw and then examine whether $A$ is an open or closed set in the following cases:****

3) 

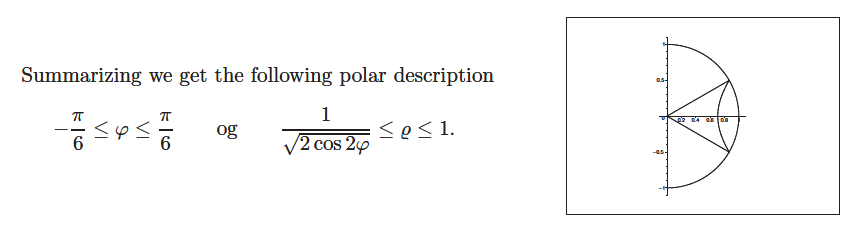
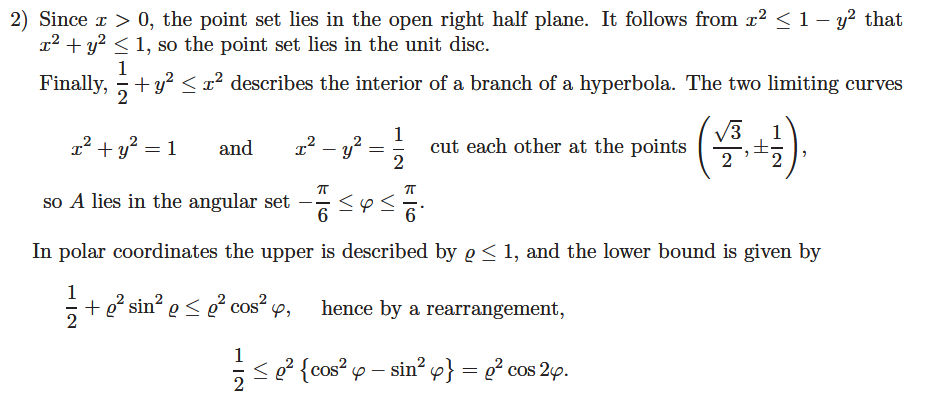
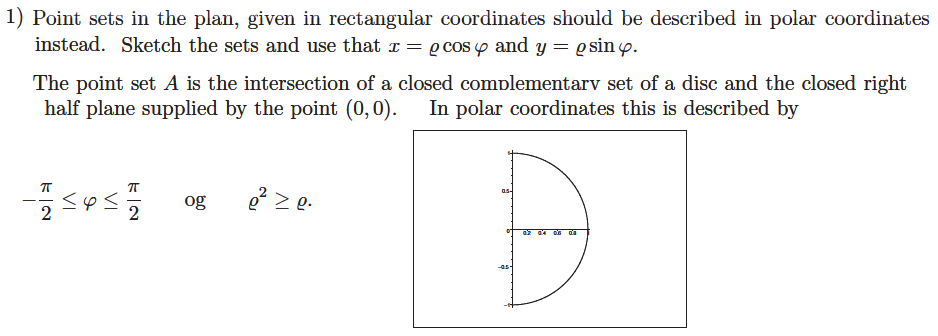
2) 

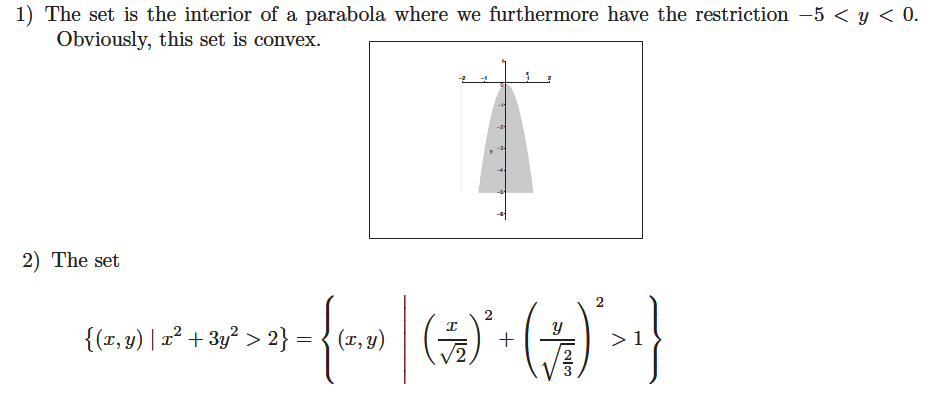
4) 

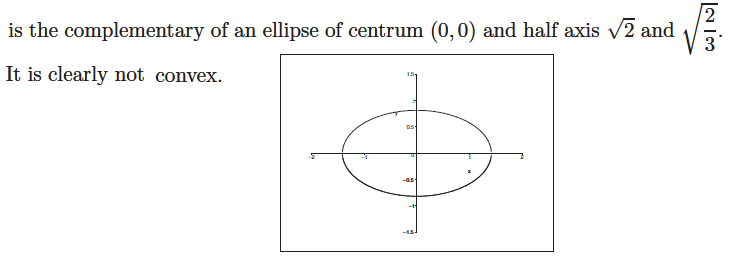
**B)** Find the Cartesian equation

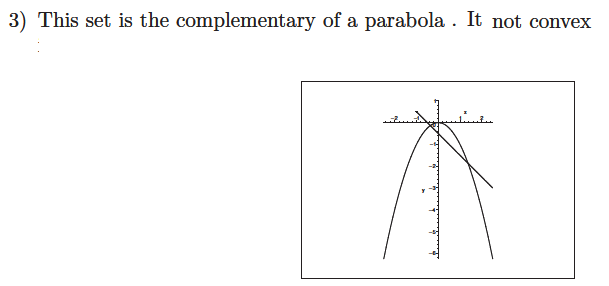


**C)** Rewrite the set $A$ using polar coordinates



**Exercise 3.** Sketch the sets of points below and indicate which ones are convex 

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**4)** This set is the closed fourth quadrant. It is clearly convex. There is no need to sketch it