## Exercise 1

## • No need to hand in

• There will be tutorial starting next week

1. Provide the graph of the following sets (except for obvious sets such as  $\mathbb{R}^2, \mathbb{R}^2_{++}, \emptyset$ )

(a) 
$$\{(x,y) \in R_+^2 : xy \ge 1\}$$

(b) 
$$\{(x,y) \in R_+^2 : xy \ge -1\}$$

(c) 
$$\{(x,y) \in R^2 : e^{-(x^2+y^2)} \ge 2\}$$

(d) 
$$\{(x,y) \in R^2 : e^{-(x^2+y^2)} \ge 1/2\}$$

(e) 
$$\{(x,y) \in R^2 : e^{-(x^2+y^2)} \ge -2\}$$

2. Questions from text book:

Page #	Exercise #	Question #
14	2.3	1
20	2.4	7
66	4.3	5(a) - 5(e)
69	4.4	1, 5(c), 5(d), 5(e), 6
72	4.5	1, 2