Exercise 1 (I)
For the following pair of points :
(a) Plot the points
(b) Find the distance between the points
1- (3, 1), (5, 5)

2- (−2, 0), (0, \sqrt{2})
Exercise 2 (I)
Show that the points \((0, 1), (3, 7), (4, -1)\) form the vertices of a Right triangle.

Exercise 3 (II)
Find \(x\) such that the distance between the two points \((1, 0)\) and \((x, -4)\) is 5.
Exercise 4
For each of the following polynomials, determine the degree, the leading coefficient, and the absolute coefficient
(a) (I) \( f(x) = 1.2x^5 - 2x^3 + 3x + 4 \)

(b) (I) \( f(x) = 3x^3 - 2x^2 \)

(c) (II) \( f(x) = 5.1x^4 + 4x^2 - 3x \)

Exercise 5
Determine if the relation defines a function \( y = f(x) \) or not?
(a)(I) \( x + 2y = 1 \)

(b)(II) \( x^2 - y = 0 \)

(c)(I) \( x^2 + y^2 = 1 \)
Exercise 6
Find $x$- intercept and $y$- intercept of the following relations
(a)(I) $x + 2y = 1$

(b)(II) $x^2 - y = 0$

(c)(I) $x^2 + y^2 = 1$

(d)(II) $x - y^2 = 4$

Exercise 7
sketch the graph of the following relations
(a)(I) $x + 2y = 1$
(b)(II) \( x^2 - y = 0 \)

(c)(I) \( x^2 + y^2 = 1 \)

(d)(II) \( x - y^2 = 4 \)