Tutorial Series Number 0 - Math1

Exercise 1

In each case,Write the quadratic polynomials in canonical form:

1)$x^2 + 6x - 8$.
2)$x^2 - 5x + 3$.

Exercise 2

a. Solve the following equations in $\mathbb{R}$ using the discriminant Δ:

1)$x^2 - x - 6 = 0$.
2)$1 - t - t^2 = 0$.

b. Solve the following inequalities:

1)$m^2 + m - 20 \leq 0$.
2)$x^2 - 2x + 3 > 0$.
3)$-x^2 - 9 \geq 0$.
4)$y^2 + y < 3$.

Exercise 3

1) Verify that -1 is a solution of the equation: $x^2 + 3x + 2 = 0$.
2) Find the sum and product of the roots.
3) Deduce the other solution.