

- i.  $a_1^2 + b_1^2 = c_1^2$

- ii.  $\sum_{i=0}^n \sqrt[3]{\frac{a_i + b_i}{c_i}}$

Given a quadratic equation,  $ax^2 + bx + c = 0$ , then if  $\sqrt{b^2 - 4ac} \geq 0$ , roots of the equation are real. Else, the roots are complex.

The De Morgans laws in Set Theory are given in Eq. XXX as follows.

1.  $\overline{A \cup B} = \bar{A} \cap \bar{B}$

2.  $\overline{A \cap B} = \bar{A} \cup \bar{B}$

Where A and B are Sets,  $\bar{A}$  and  $\bar{B}$  are the complements of sets A and B,  $\cup$  is the Union and  $\cap$  is the Intersection operations