

Very minimalist slides

A lazy author

July 23, 2023

“Formulae” for roots of polynomials

$$ax^2 + bx + c = 0 \Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

“Formulae” for roots of polynomials

$$ax^2 + bx + c = 0 \Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Cubic equations:

$$ax^3 + bx^2 + c = 0 \Rightarrow \text{Cardano's formula}$$

“Formulae” for roots of polynomials

$$ax^2 + bx + c = 0 \Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Cubic equations:

$$ax^3 + bx^2 + c = 0 \Rightarrow \text{Cardano's formula}$$

For quartic equations, there is also a formula.

“Formulae” for roots of polynomials

$$ax^2 + bx + c = 0 \Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Cubic equations:

$$ax^3 + bx^2 + c = 0 \Rightarrow \text{Cardano's formula}$$

For quartic equations, there is also a formula.

How about quintic functions?

“Solvable by radical” theorem

The roots of a polynomial can be written as the combination of $+$, $-$, \times , \div , $\sqrt{\cdot}$, if and only if its Galois group is **solvable**.



This slide changes!

You can always see this.

This slide changes!

You can always see this. But this appears later!