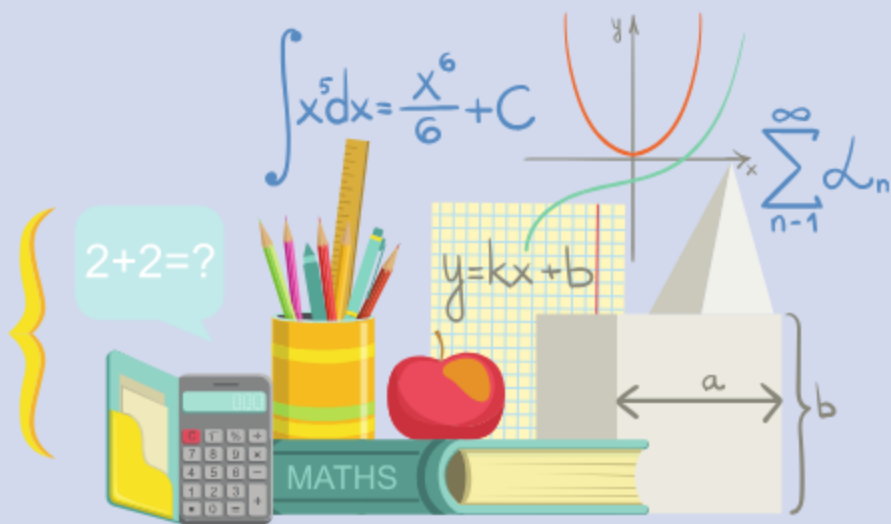


MATHEMATICS



Course Program

Study of functions:

- Domain
- Range
- Symmetries¹
- Sign
- Intersection with axis¹
- Asymptotes²
 - Vertical
 - Horizontal
 - Oblique
- Function graph
- Graph of $fx \pm h$; $f(x \pm h)$; $kf(x)$; $f(kx)$, from the graph of $f(x)$ ⁴.

Types of functions:

- Polynomial functions
- Rational functions
- Irrational algebraic functions³
- Goniometric functions⁴
- Exponential functions⁴
- Logarithmic functions⁴

*In order to solve these tasks, you need to know how to solve polynomial, rational, irrational, goniometric, exponential and logarithmic equations and inequalities).

¹ For this step you must know how to find the absolute value;

² In order to solve these tasks, you need to know how to find the function limits, both for x going to a finite number and for x going to infinity:

³ In order to solve this step, you must know analytic geometry;

⁴ In order to solve this step you will need to know how to use geometric transformations such as translation and dilation.