



Gymnázium Evolution

# Czech Maturita Exam Topics 2025/2026

## MATHEMATICS: APPLICATIONS AND INTERPRETATION SL

*Tools allowed: Casio fx-CG50; Mathematics: applications and interpretation formula booklet; geometry tools*

1. Number and algebra (estimation and calculation of percentage error, sets, rounding, laws of exponents, scientific notation, logarithm)
2. Arithmetic sequences and series
3. Geometric sequences and series
4. Functions – graph, characteristics of functions, inverse function
5. Functions – linear, quadratic, inverse variation
6. Functions – exponential, trigonometric
7. Functions – mathematical models
8. Surface area and volume of solids
9. Trigonometry (right- angled and non-right angled)
10. Voronoi diagram
11. Descriptive statistics
12. Probability
13. Derivative of a function – rate of change
14. Topic: The use of derivatives to determine characteristics of functions (local maxima, minima, monotony)
15. Tangent line, normal line of a function
16. Optimisation (use of derivatives)
17. Integral calculus – anti-derivatives
18. Definite integral – area under a curve
19. Probability distributions

20. Statistical analysis – chi square test (goodness of fit test, test for independence)

21. Statistical analysis t-test

22. Measure of correlation, linear regression