

Math 0 Third Homework

Caboara

Dear students, please send the solutions to me by mail no later than Saturday, October Wednesday, October 22th. Late solutions will not be graded. PDF or jpg or what suits you, BUT NO HEIC files. Please write down the solutions in the given order, first for ex 1, then 2 and so on.

Please answer showing all the necessary reasoning and steps AND MARK CLEARLY THE SOLUTIONS THEMSELVES.

You will receive the grading by Thursday, October 23th, and the grades will count for the final grade for the MATH0 exam.

1. Solve the equation $x^3 + x^2 - 10x + 8 = 0$.

Solution. $x = 1, 2, -4$

□

2. Give the remainder of the polynomial division of $x^4 + x^3 - x + 1$ by $2x^2 + 3$

Solution. $-5/2x + 13/4$

□

3. Compute $\gcd(3484, 284)$

Solution. 4

□

4. Solve $\log_5(2x + 1) + \log_5(x - 2) = 1$

Solution. $x = \frac{3+\sqrt{65}}{4}$

□

5. Solve $18^x + 6^x - 2^x = 0$

Solution. $x = \log_3\left(\frac{-1+\sqrt{5}}{2}\right)$

□