

Only students of Mr. Mansoor Khurshid's Section will solve this Assignment.

Assignment # 01

MTH100 (FALL 2025)

Due Date: 17 - 11 - 2025

Total Marks: 20

DON'T MISS THESE: Important instructions before attempting the solution and submission of this assignment:

- Lectures (01 - 08) are encompassed in Assignment No.1.
- Only students in Mr. Mansoor Khurshid 's Section shall complete this Assignment.
- Students in other teacher's section will be completing a different assignment and are prohibited from solving this one.
- Submitting a copied assignment or irrelevant assignment will result in a zero grade.
- Assignment 1 is due on Monday, Nov 17, 2025.
- Properly Upload the solution of this assignment in MS Word format on LMS as per the previous practice.

Only students of Mr. Mansoor Khurshid's Section will solve this Assignment.

Note: There are 4 questions in assignment. Please attempt all of them.

Question 01:

Marks = 5

Let A be a set of all positive multiples of 1 and B be a set of all positive multiples of 3.

(a) Check and give reason whether A is a subset of B , or not.

(b) $A \cap B$

Question 02:

Evaluate

Marks = 5

$$\left| \frac{5i}{3-i} \right|$$

Question 03:

Marks = 5

Determine domain and range of the function

$$f(x) = \frac{1}{x^2 - 4}$$

Only students of Mr. Mansoor Khurshid's Section will solve this Assignment.

Question 04:

Marks = 5

Let $u(x) = 5x + 7$ and $v(x) = 5x + 7$ be two functions. Find the composite functions $(u \circ v)(x)$ and $(v \circ u)(x)$.