

MATH 453 FINAL EXAM - SPRING, 2022

Instructions: You may cite results from class or the textbook, but clearly **identify by name** or **state** what you are using.

Note: Problems #1 - 5 constitute the Geometry Prelim exam.

1. Let N^n and M^m be compact,

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5. Let M be a smooth, oriented, n -dimensional manifold without boundary. For 0