

MATH 3191 Written Homework 5

____/20 points

Name: _____

Due: February 23rd

Show all work that leads to your answers. I will be providing feedback on the work as well as the answers!

1. (10 points) Let

$$A = \begin{bmatrix} a & b & c \\ 1 & 2 & 3 \\ 3 & 2 & 1 \end{bmatrix}$$

Compute the determinant of A as a function of a, b, c . Note: This means you should have a, b, c present in your answer.

2. (10 points) Let A be an invertible matrix such that $A^{-1} = A^{\top}$. What are the possible values for the determinant of A ? Explain how you got your answer.