

Name: \_\_\_\_\_.

## MA 26500 Quiz 3

June 24, 2016

1. Let  $A$  be the following matrix

$$A := \begin{bmatrix} 1 & 1 & 1 \\ 1 & 2 & t \\ 1 & 4 & t^2 \end{bmatrix}.$$

- (a) (8 points) Compute the determinant of  $A$  using any method you like.
- (b) (4 points) For what values of  $t$  is  $A$  nonsingular?

2. Let  $A$  be the following matrix

$$A := \begin{bmatrix} 3 & -2 & 1 \\ 5 & 6 & 2 \\ 1 & 0 & -3 \end{bmatrix}.$$

- (a) (5 points) Find the adjoint matrix of  $A$ ,  $\text{adj}(A)$ .
- (b) (3 points) Find the determinant of  $A$ .