

Name:

Section (time):

### Math 340 Quiz ★4★

1.) For what values of  $t \in \mathbb{R}$  is the following matrix invertible?

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

2.) (a) Using any method *except* cofactor expansion, compute the determinant of

$$A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 2 & 3 \end{bmatrix}.$$

(b) Using cofactor expansion, compute the determinant of

$$B = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 1 & 1 & 1 & 2 \\ 1 & 1 & 1 & 1 \\ 1 & 2 & 3 & 7 \end{bmatrix}.$$