

## HOMEWORK 8

**Problem 1:** Let  $A$  be an  $n \times n$  matrix and consider the function

$$f(t) = \det(I + tA) .$$

Compute  $f'(0)$ .

Please also work problems 15, 19 and 30 in Section 4.3 of Strang. Then continue working problems 9, 10 and 31 in Section 4.4 of Strang.

**Please turn it in for grading on Thursday March 12 .**