

NAME :

1. In a MATLAB session, type in the following commands:

```
>> u = [1 2 3]; v = [2 3 -1]; w = [1 0 1];
```

The volume of the parallelepiped spanned by  $u$ ,  $v$ , and  $w$  is the absolute value of the determinant of the 3-by-3 matrix whose columns are  $u$ ,  $v$ , and  $w$ .

Give all MATLAB commands to compute this determinant using the  $u$ ,  $v$ , and  $w$  (thus: *without retyping any numbers*). Give also the value you obtained.

2. Consider the  $\sqrt{x}$  for  $x \in [0, 2]$ . Give all MATLAB commands for the following:
  - (a) Take increments of 0.1 to sample the sqrt in the interval  $[0, 2]$ .
  - (b) Take a linear fit of the sqrt using the sample points.
  - (c) Make a plot of sqrt and your linear equation on the *same* figure.

**Alternative:** On Monday 4/14, give the answers to 1.3.2,3,5 and 2.3.1,3.