Linear Algebra Mock-Test #2 (Exact same questions different numbers)

1. Given A= 2 3 express A as a product using elementary matrices.
   1 2

2. Find the determinant of

3	0	0	0
7	3	3	0
2	4	0	1
-4	3	-1	0

3. Use Cramer's rule to find x_3 from the following system:

$x_1 - x_2 - 2x_3 = 4$
$2x_2 + x_3 = 2$
$x_1 + x_3 = 0$

4. Find the value of k such that the given vectors are linearly dependant.

$X_1 = [-1 \ 3 \ 3]$
$X_2 = [1 \ -3 \ 2]$
$X_3 = [3 \ k \ 2]$

5. If det A of a b c , = 6. Then evaluate det A of a+p b+q c+r
   p q r 5x 5y 5z
   x y z -2p -2q -2r