Kinetics Practice #1

The following reaction was studied:

 $2A + B \rightarrow C + D$

TRIAL	[A]	[B]	INITIAL RATE OF C FORMATION
1	0.25	0.75	(mol/Lmin) 4.3 X 10 ⁻⁴
2	0.75	0.75	1.3 X 10 ⁻³
3	1.50	1.50	5.2 X 10 ⁻³
4	1.75	???	8.0 X 10 ⁻³

1) DETERMINE THE RATE LAW.

2) CALCULATE K WITH UNITS.

3) DETERMINE THE INSTANTANEOUS RATE OF CHANGE OF [A] IN TRIAL #3.

4) DETERMINE THE INITIAL VALUE OF [B] IN TRIAL #4.