

Section AAnswer **all** questions in this section.

- 1** Ethene reacts with steam in the presence of an acid catalyst to form ethanol.



- 0 1** . **1** Write an expression for the equilibrium constant K_c for this equilibrium.
Deduce the units of K_c .

[2 marks]

Expression _____

Units _____

- 0 1** . **2** An equilibrium mixture was found to contain 0.700 mol of ethene, 1.20 mol of steam and 4.40 mol of ethanol at a temperature T . The volume of the container was 2.00 dm³.

Calculate a value of K_c for this equilibrium at this temperature.

Give your answer to an appropriate number of significant figures.

[2 marks]

