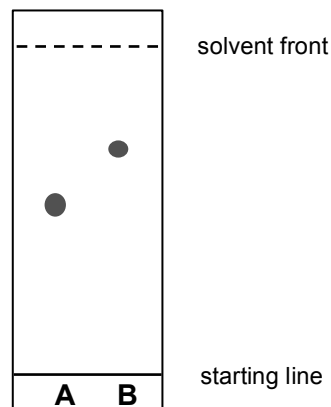




Propylamine and triethylamine were analysed by thin layer chromatography. A silica plate was used with hexane as solvent. The resulting chromatogram is shown.



a Draw the skeletal structure of each amine.

propylamine

triethylamine

b Give two ways in which the spots of these colourless substances could be identified. .

- 1.....
- 2.....

c Calculate the R_f value of spots **A** and **B**.

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d State which substance is spot **A**. Explain your answer.

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e A second experiment was carried out. Before putting samples on the plate, some hydrochloric acid was added to each amine. Predict how the R_f values for the acidified amine samples will change from the original experiment.

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