

Solutions

Each answer shows the steps, then the **result**.

2.1

- aluminium oxide (alumina) / silica on a plate

2.2

- $R_f = 3.6/4.8 = 0.75$

3.1 C

- R_f is always between 0 and 1, so 1.4 is impossible

3.2 B

- A smaller R_f means it sticks more strongly to the stationary phase and moves less

3.3

(a)

- $R_f = \frac{2.1}{6.0} = 0.35$

(b)

- it binds (adsorbs) strongly to the stationary phase

3.4

- the components have different affinities for the stationary and mobile phases; so they travel up the plate at different rates and end at different heights, giving different R_f values