3 A group of students, 4 girls and 3 boys, stand in line.

(a) Find the number of different ways the students can stand in line if there are no restrictions. [1]

(b) Find the number of different ways the students can stand in line if the 3 boys are next to each other. [2]

(c) Cam and Dea are 2 of the girls. Find the number of ways the students can stand in line if Cam and Dea are **not** next to each other. [2]

© UCLES 2022

4 Find the x-coordinates of the points of intersection of the curves $\frac{x^2}{4}+\frac{y^2}{9}=1$ and $y=\frac{3}{2x}$.
Give your answers correct to 3 decimal places. [5]