

2. (a) Write down the parametric equation of a line between points  $(x_0, y_0)$  and  $(x_1, y_1)$ . [4]
- (b) What inequalities need to be satisfied for this line to be clipped against a box with opposite corners at  $(x_{min}, y_{min}), (x_{max}, y_{max})$ ? [4]
- (c) Using your answer to (b), explain the Liang-Barsky Clipping method for a line which crosses one or more clipping boundaries. [11]
- (d) In what ways is the Liang-Barsky method more efficient than the Sutherland-Cohen method? [6]