

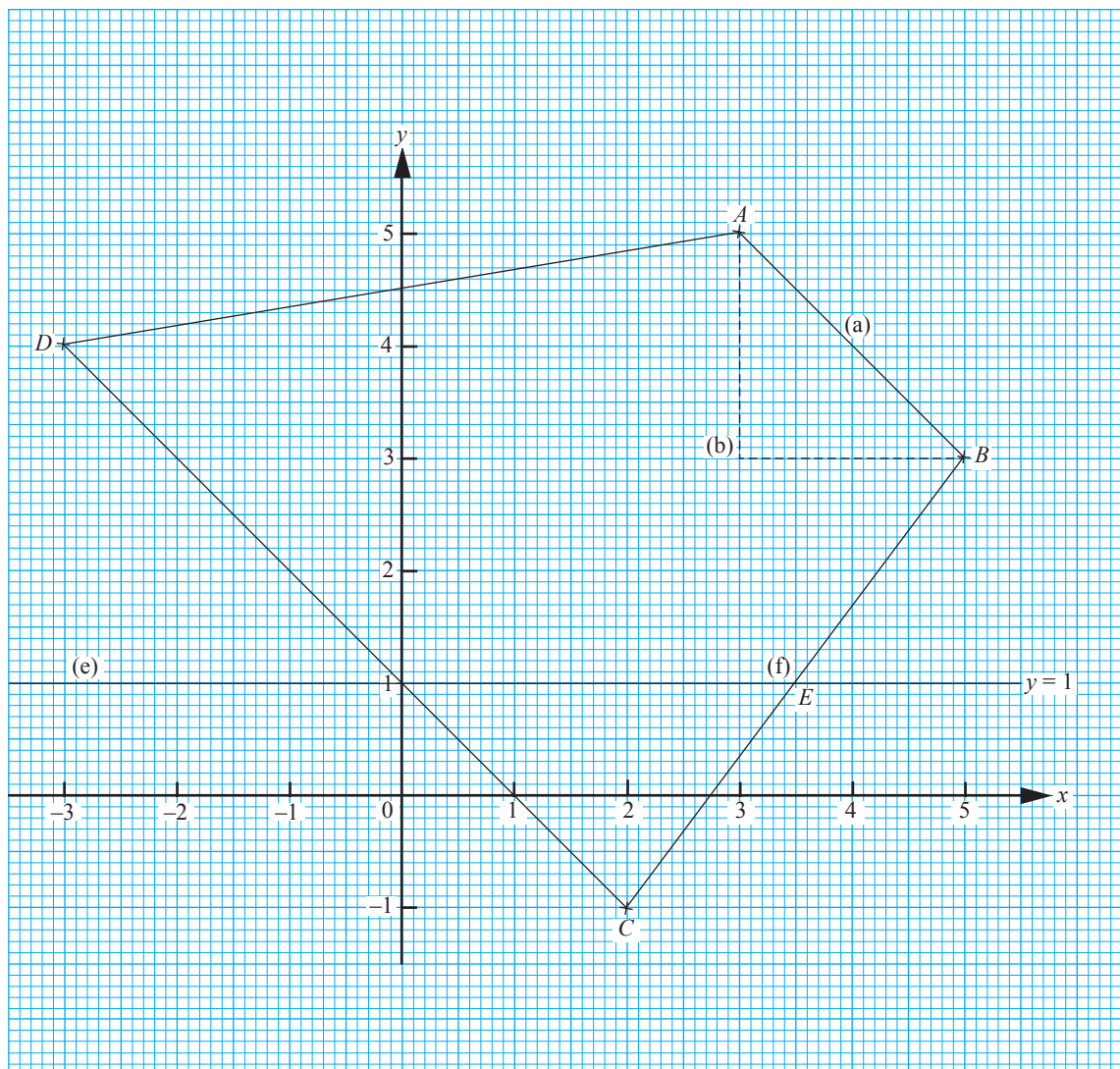
Functions and Graphs

1. *Answer the whole of this question on a sheet of graph paper.*
A and B are two points of coordinates (3, 5) and (5, 3) respectively.
 - (a) On a graph paper, plot and label the points *A* and *B*. Draw a line joining *A* and *B*.
 - (b) Find the gradient of the line *AB*.
 - (c) Plot and label the points *C*(2, -1) and *D*(-3, 4).
 - (d) Join the points *A*, *B*, *C* and *D* and state the shape of the pattern obtained.
 - (e) On the same diagram, draw the line $y = 1$.
 - (f) Write down the coordinates of the point *E* where the lines *BC* and $y = 1$ intersect.

2. The gradient of a straight line graph is -3 and it passes through (2, -11).
 - (a) Draw and label this graph on a graph paper.
 - (b) Find the value of x when $y = -2$.

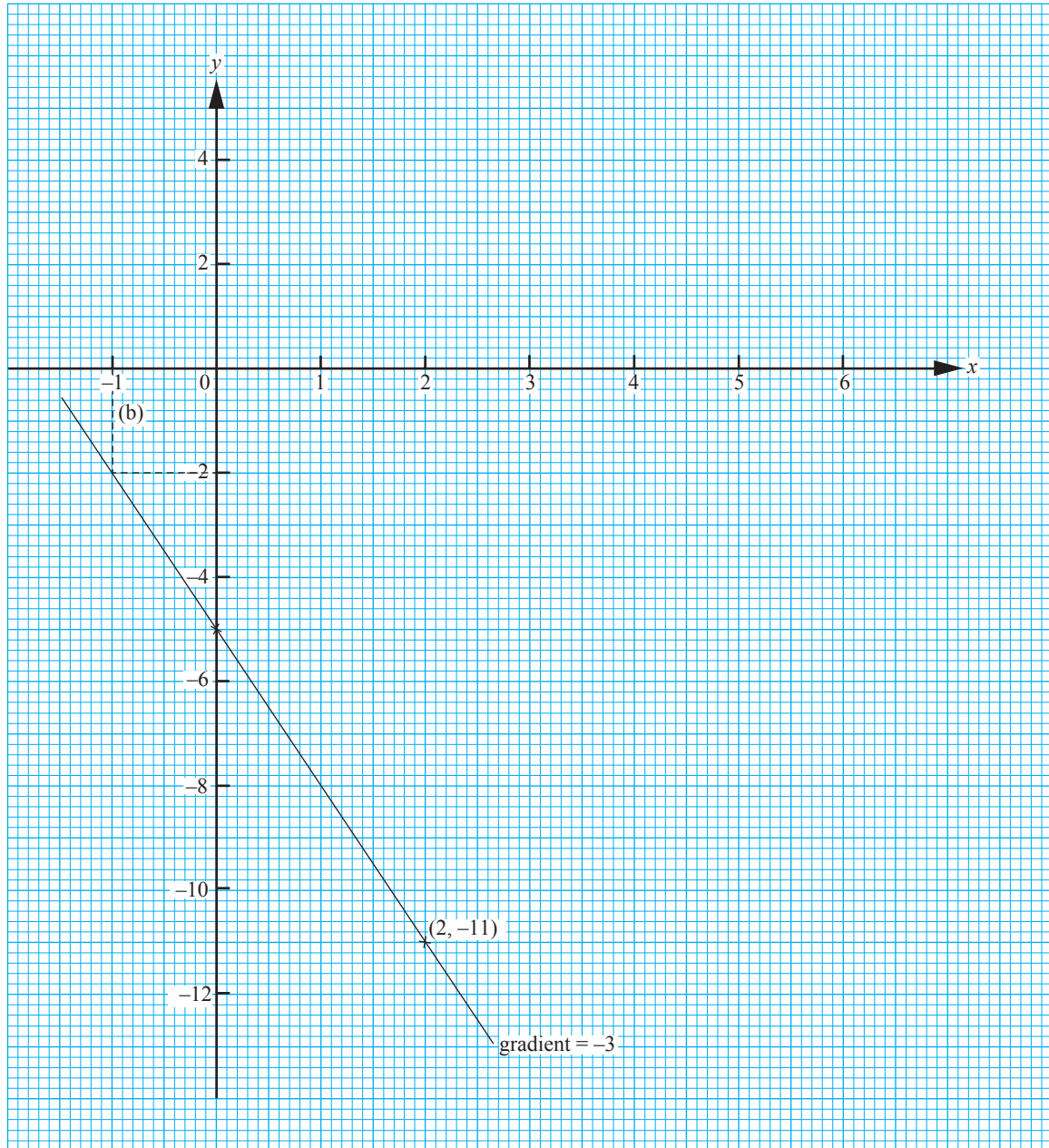
Functions and Graphs

1. (a) – (f)



- (b) Gradient of $AB = -\frac{2}{2}$
 $= -1$
 (d) Trapezium ($AB \parallel CD$)
 (f) $E(3.5, 1)$

2. (a), (b)



(b) When $y = -2$, $x = -1$