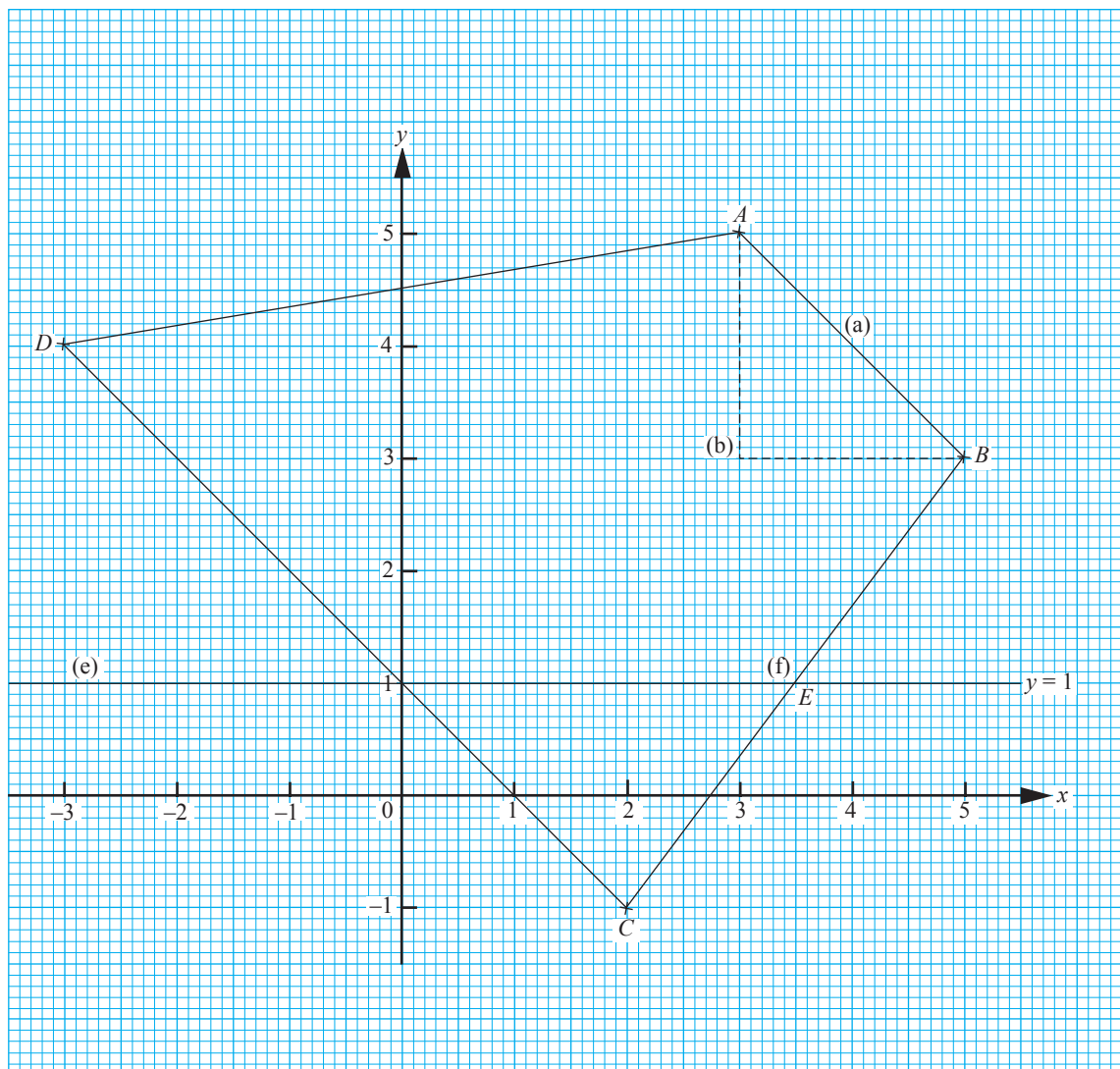


# Functions and Graphs

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  $y = -2$ .

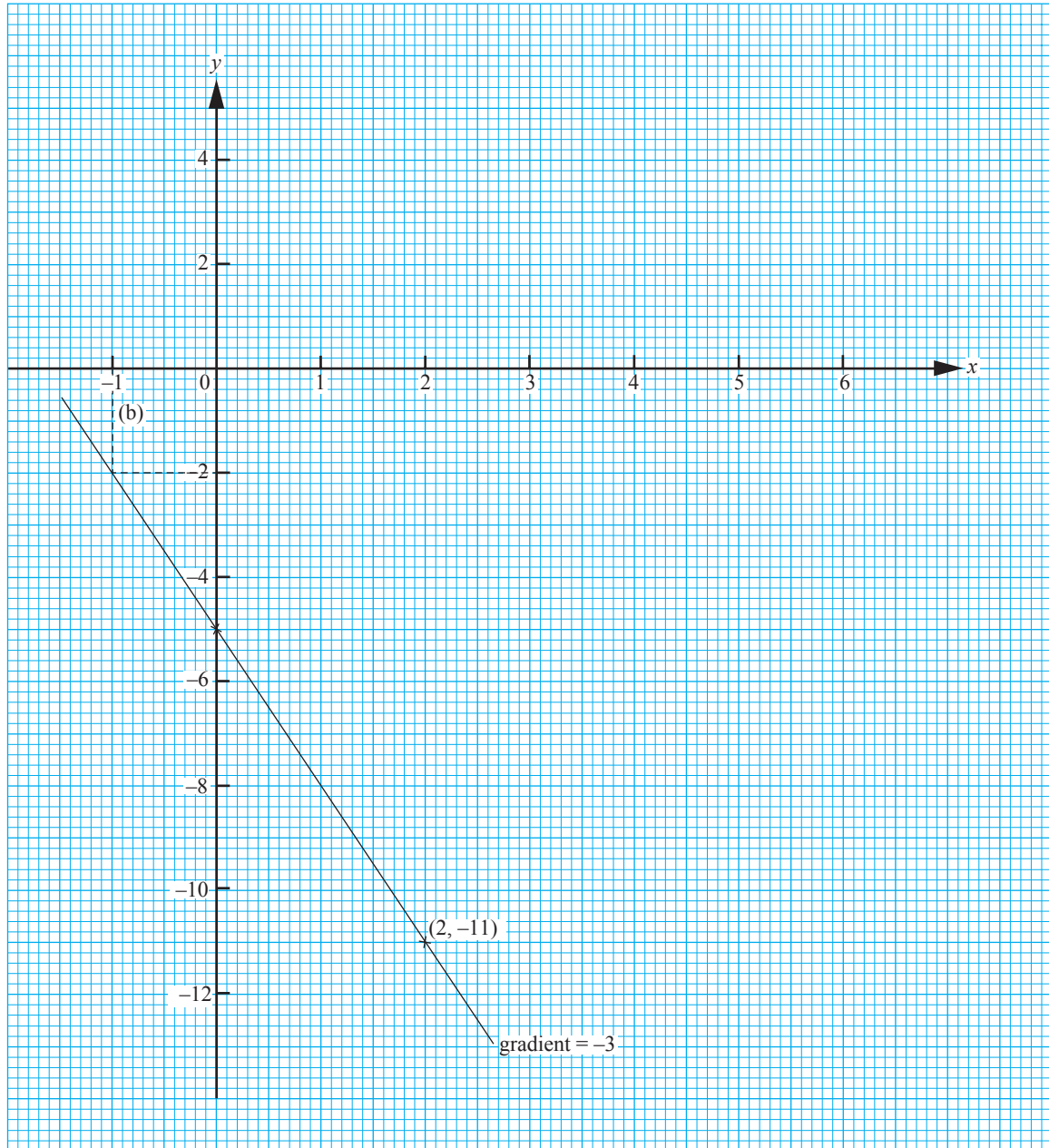
# Functions and Graphs

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  $y = -2$ ,  $x = -1$