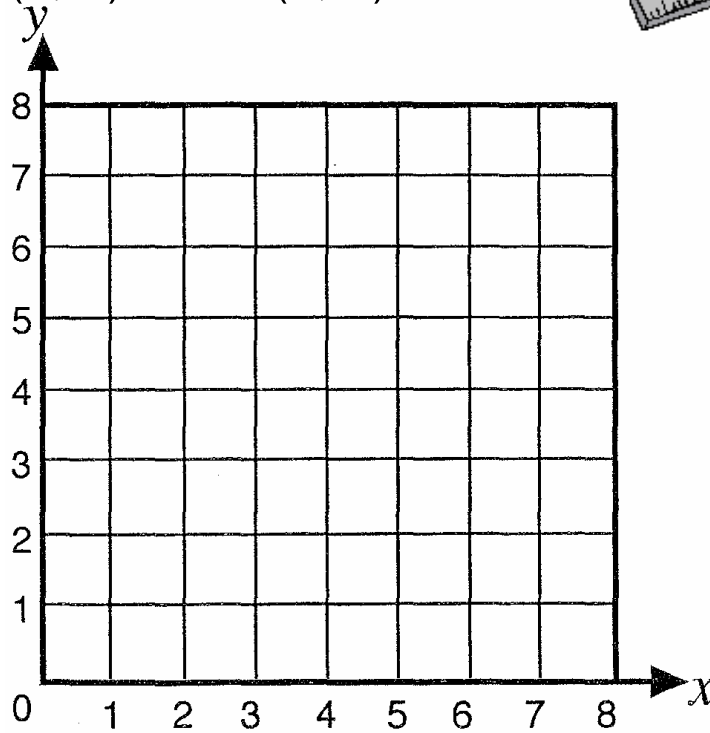
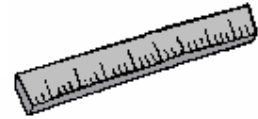


Chapter 7



Coordinates

1. a) Using the grid below, draw the square PQRS with $P(2, 3)$ and $R(6, 7)$.



- b) What are the coordinates of Q and S?
- c) If the point P were moved to $(4, 2)$, what would the new coordinates of Q, R and S have to keep the square the same size?

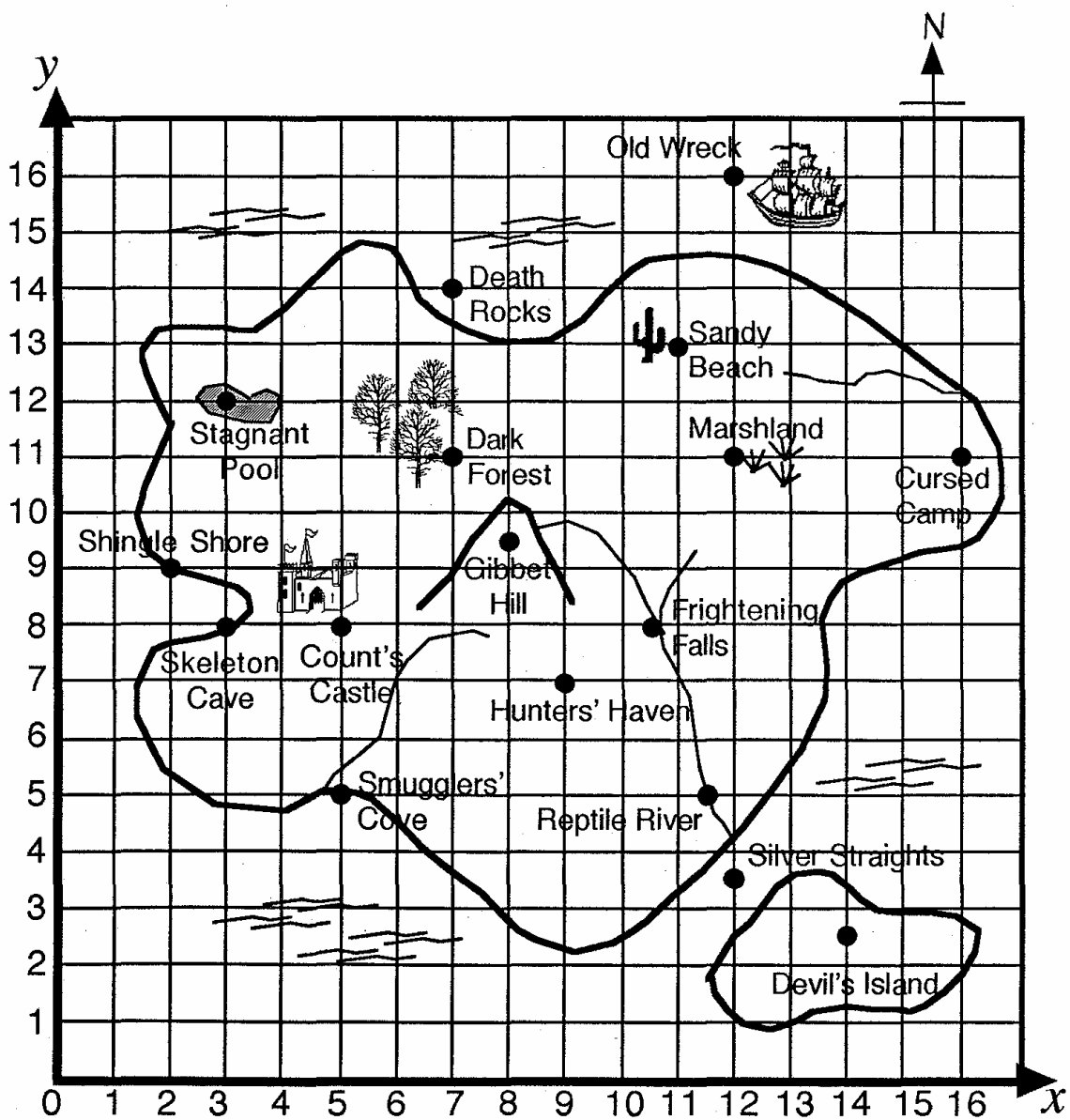
2. a) Which places on the map below are given by the following coordinates:

(i) (5, 5)

(ii) (7, 11)

(iii) (12, 3½)

(iv) (9, 7)



b) Write down the coordinates of the following places:

(i) Marshland

(ii) Old Wreck

(iii) Devil's Island

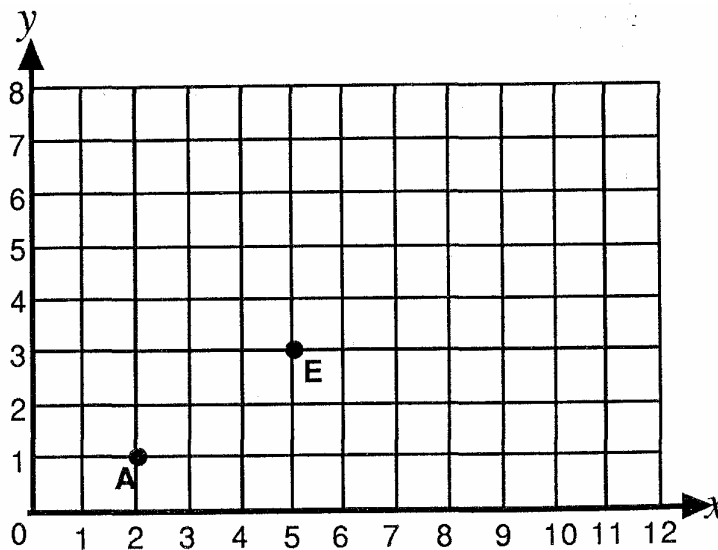
(iv) Frightening Falls

(8)

3. A is one corner of a rectangle ABCD.

E is the centre of the rectangle.

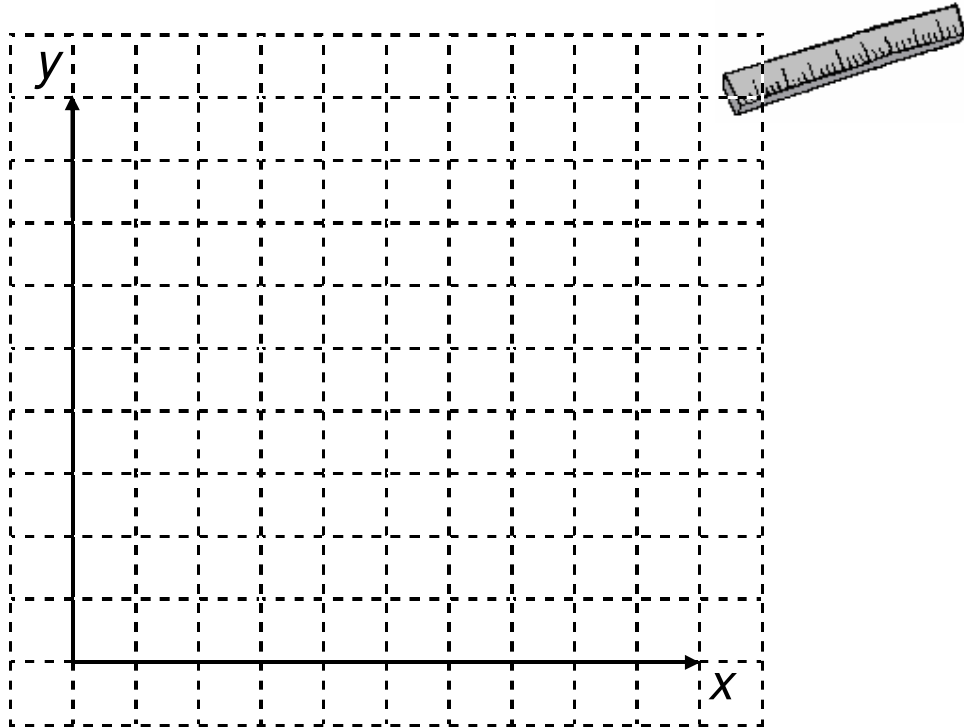
a) Complete the rectangle by plotting points C & D:



b) Write down the coordinates of A, B, C, D and E.

(7)

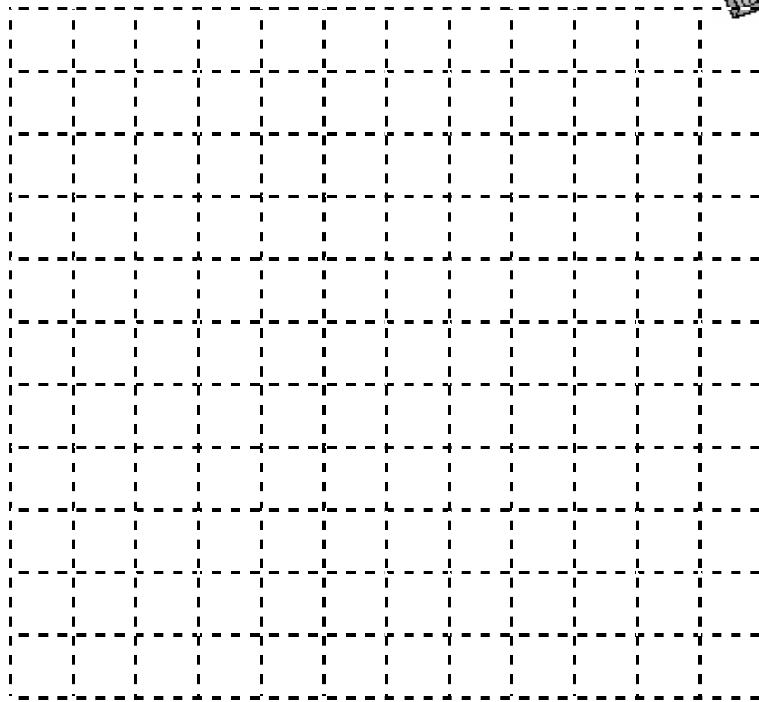
4.



- a) Plot the points $A(2,4)$ and $B(8,4)$. Find the point C which is the midpoint of AB (exactly halfway between A & B). What are the coordinates of C ?
- b) Plot the points $P(3, 5)$ and $Q(3,9)$. What are the coordinates of R , the midpoint of PQ ?
- c) Plot the points $S(0, 5)$ and $T(4, 1)$.
What are the coordinates of the midpoint of ST ?
- d) Write down a rule for finding the coordinates of the midpoint of a line.

(12)

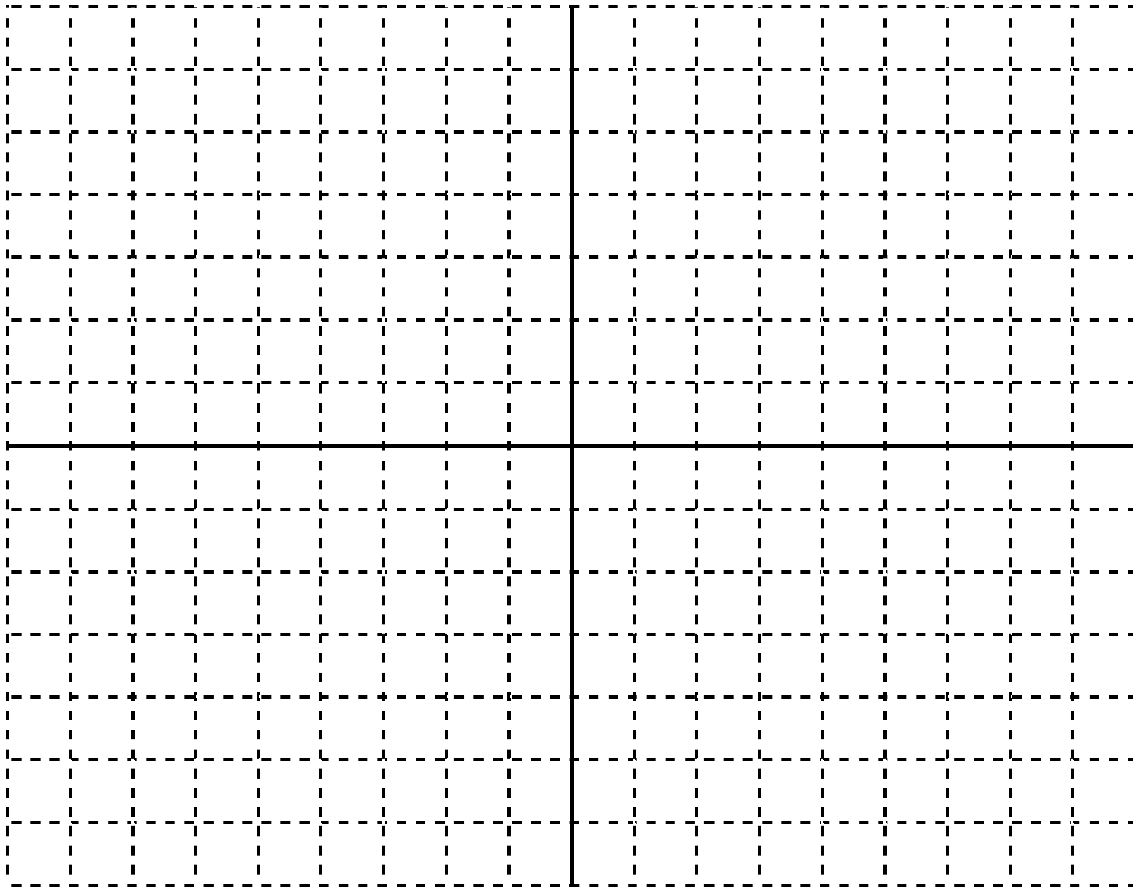
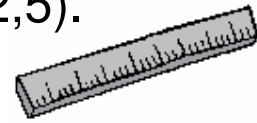
5. Using the grid below, draw an x-axis from 0 to 8 and a y-axis from 0 to 8.



- a) Plot the points $(0, 4)$, $(4, 4)$, $(7, 4)$.
Draw a line passing through the points.
- b) On the same grid, plot the points $(6, 0)$,
 $(6, 3)$ and $(6, 8)$.
Draw a line passing through the points.
- c) Write down the coordinates of the point
where the lines intersect.

(7)

6. a) Plot the points $A(-3,-2)$ and $C(2,5)$.



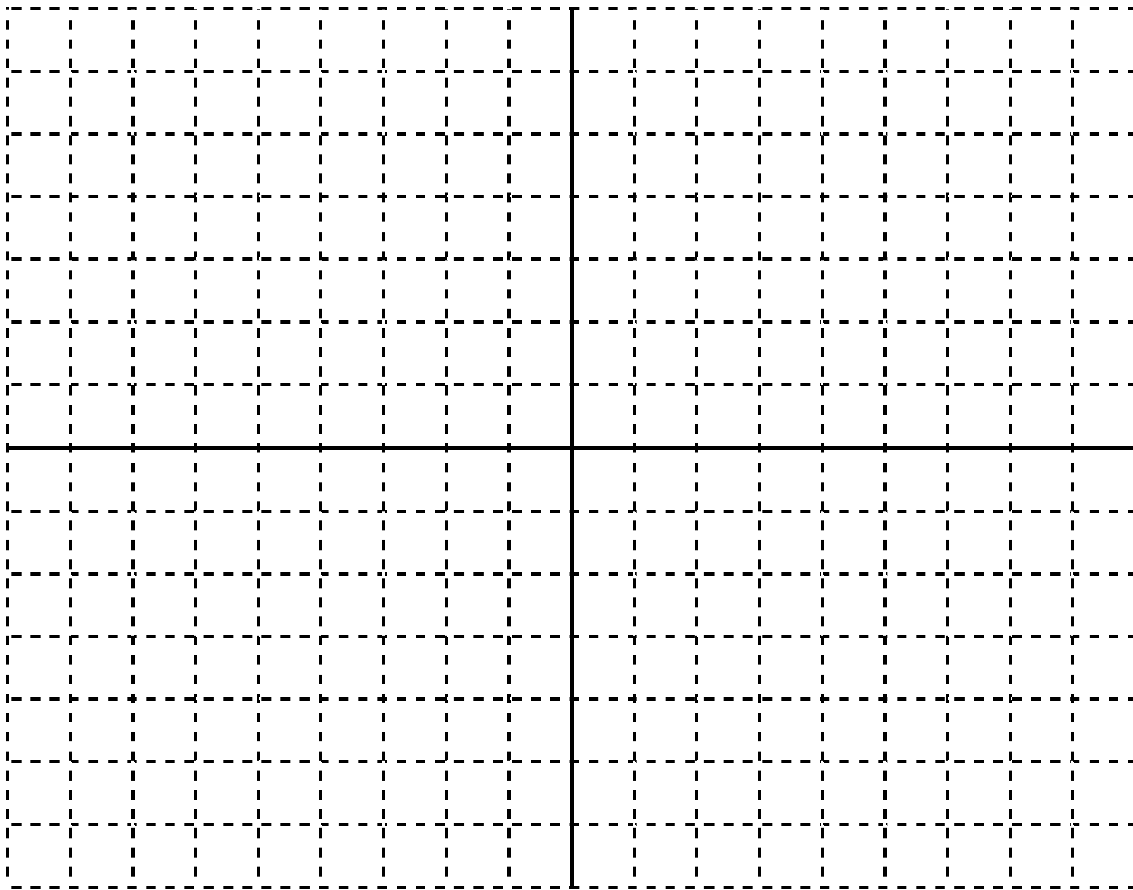
b) Plot points B and D so that ABCD is a rectangle.

What are the coordinates of B and D?

c) What is the perimeter of ABCD?

(8)

7. Using the grid below, label the x -axis from -8 to 8 and the y -axis from -6 to 6.



Now plot these points, joining them up in order:

$$(-5,-5) \Rightarrow (6,-5) \Rightarrow (7,1) \Rightarrow (5,-1) \Rightarrow (2,0) \Rightarrow$$

$$(-1,-1) \Rightarrow (1,3) \Rightarrow (1,5) \Rightarrow (-1,5) \Rightarrow (-1,4) \Rightarrow$$

$$(-3,4) \Rightarrow (-1,3) \Rightarrow (-5,-5)$$

What have you created?

(6)

————— END OF HOMEWORK EXERCISE —————

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