SMILE WORKCARDS

Coordinates

Contents

	Title	Card Number
1	Co-ordinate Messages w/s	1758
2	Co-ordinates 1	261
3	Co-ordinates 3	263
4	Grids	853
5	Changing Grids w/s	384
6	Cartoon Co-ordinates w/s	264
7	Co-ordinates 2	262
8	Fishing w/s	1379
9	Where's that Town?	481
10	All Co-ordinates	494

Coordinate Messages

This message is
(1,5)(2,5)(3,5)(4,5)(5,5) (2,2)(4,5)(5,5)(1,4)(1,5)(5,5)
S M I L E P L E A S E

	1	2	3	4	5
5	S	M	I	L	E
4	A	B	C	D	F
3	G	H	J	K	N
2	O	P	Q	R	T
1	U	V	W	X	Y

What do these messages say?

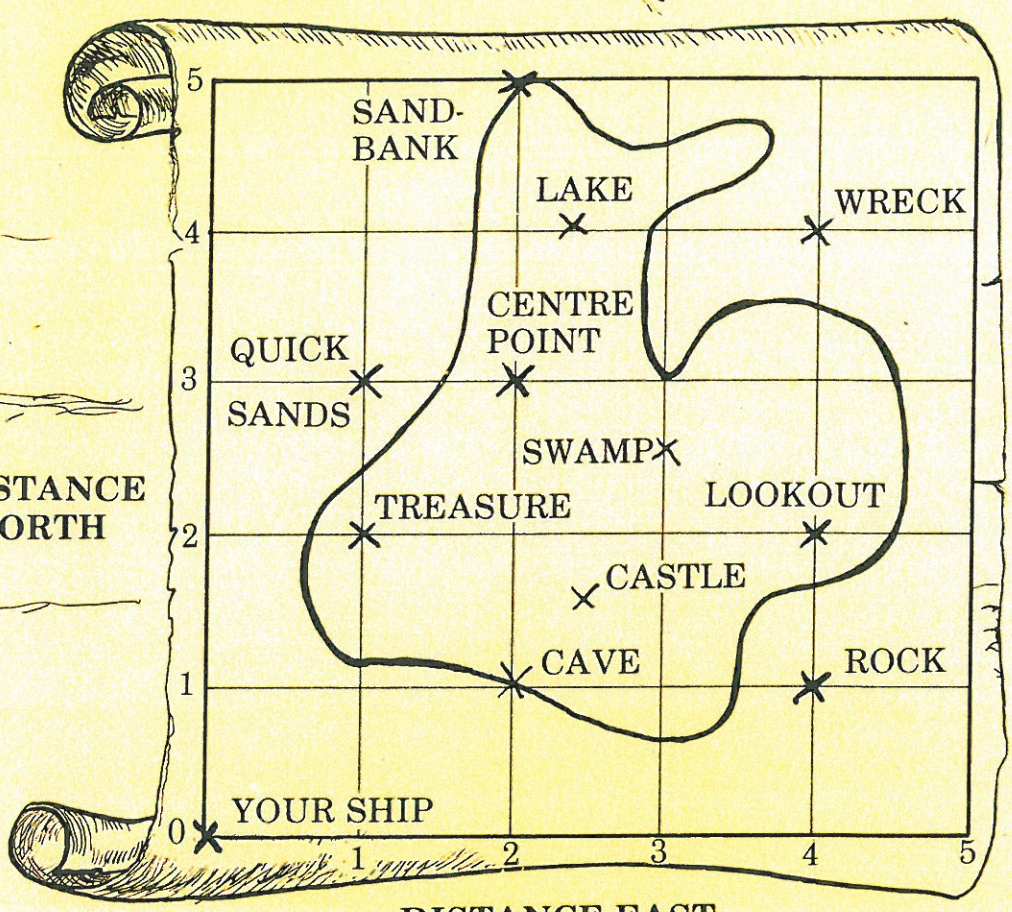
(5,2)(2,3)(3,5)(1,5) (3,5)(1,5) (1,4) (1,5)(5,5)(3,4)(4,2)(5,5)(5,2) (2,5)(5,5)(1,5)(1,5)(1,4)(1,3)(5,5)

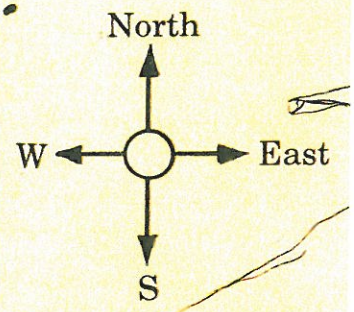
(5,1)(1,2)(1,1) (2,3)(1,4)(2,1)(5,5) (1,1)(5,3)(4,4)(5,5)(4,2)(1,5)(5,2)(1,2)(1,2)(4,4) (3,5)(5,2)

(3,1)(5,5)(4,5)(4,5) (4,4)(1,2)(5,3)(5,5)

If you liked this work send a message to a friend.

Co-ordinates





Find the ship on the map.
Move 2 east, and then 1 north.
You should be at the CAVE.
The position of the CAVE is: (2, 1)

Distance East ← (2, 1) → Distance North

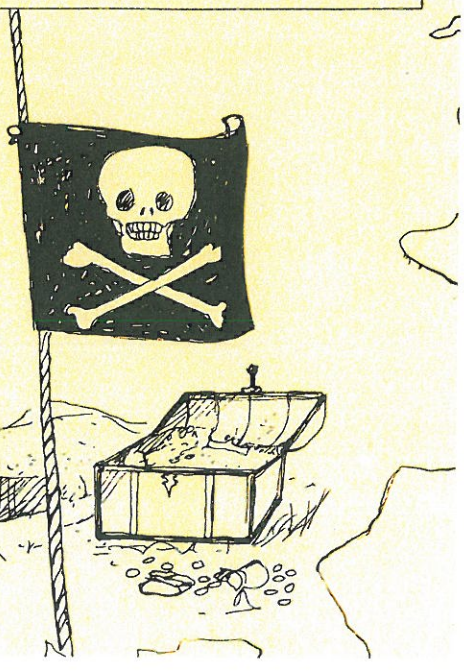
(1) Copy and complete
The cave is at (2, 1)
The ROCK is at (4,■)
The WRECK is at (■,■)
The TREASURE is at (■,■)

(2) a) What is at (2, 5)?
b) What is at (2, 1)?
c) What is at (1, 2)?
d) What is at (4, 2)?

(3) a) What is at (3, $2\frac{1}{2}$)?
b) What is at ($2\frac{1}{2}$, 4)?
c) What is the position of the castle?

(4) If you enjoy making up maps draw one of your own.
Write down the positions of all the places you mark.

Remember:
Always start at the ship (0, 0)
The first number is the Distance East
The second number is the Distance North

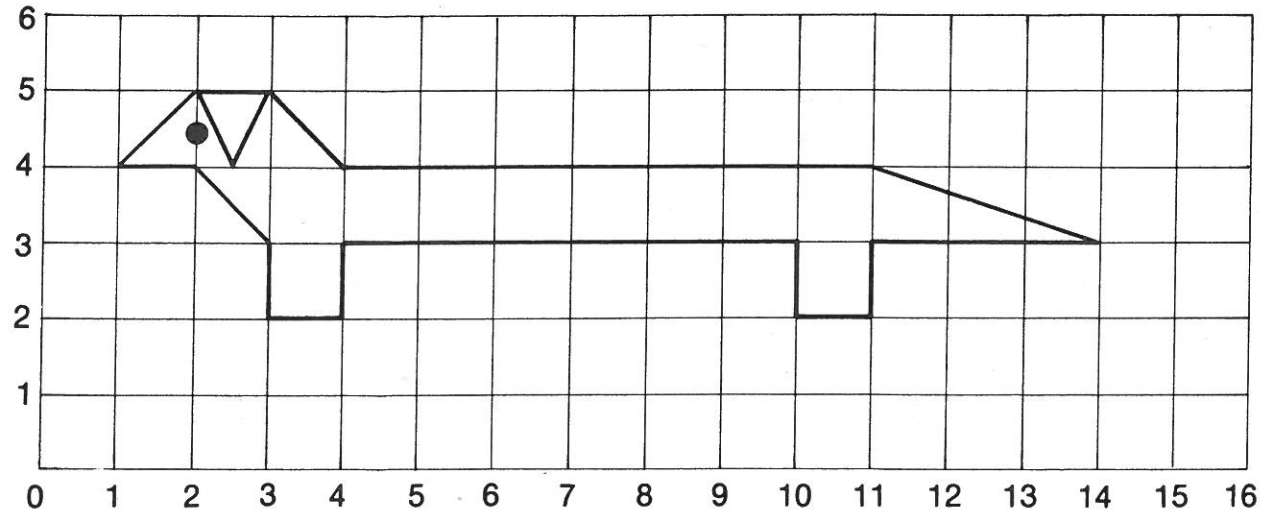


You will need cm squared paper.

Smile **0263**

Co-ordinates 3

Here is a picture of Sammy the sausage dog. Draw a grid on cm squared paper and copy Sammy exactly on to it.



1) What are the co-ordinates of:-

(a) Sammy's nose
(b) the end of his tail
(c) his eye
(d) the bottom of his ear?

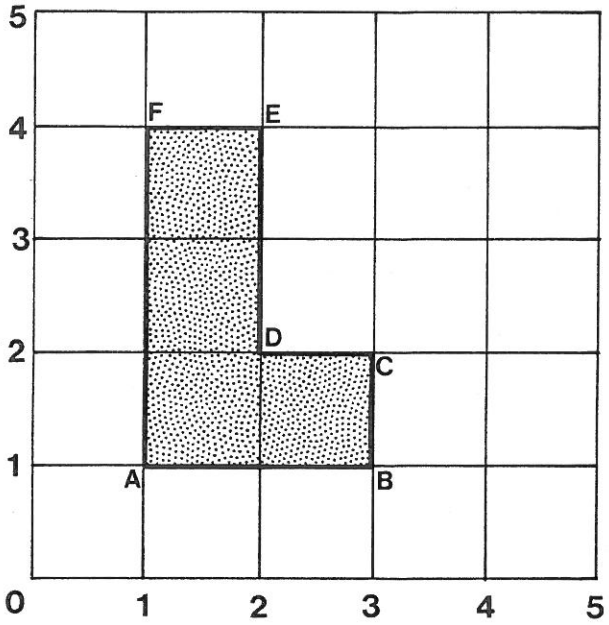
2) Draw a new grid and number the lines across and up from 0 to 10. In each question below plot the points and join them as you go.

(a)	(b)	(c)	(d)	(e)
(1, 1)	(5, 1)	(7, 1)	(1, 4)	(4, 6)
(3, 1)	(6, 2)	(9, 1)	(3, 4)	(7, 6)
(2, 3)	(5, 3)	(7, 3)	(3, 6)	(8, 8)
and back to (1,1)	(4, 2) and back to (5,1)	and back to (7, 1)	(1, 6) and back to (1, 4)	and back to (4, 6)

Write down the names of the shapes you have drawn.

You will need 2 copies of worksheet 0853A.

Grids



1) Copy and complete:
A is at (1, 1)
B is at (3, 1)
C is at
D
E
F

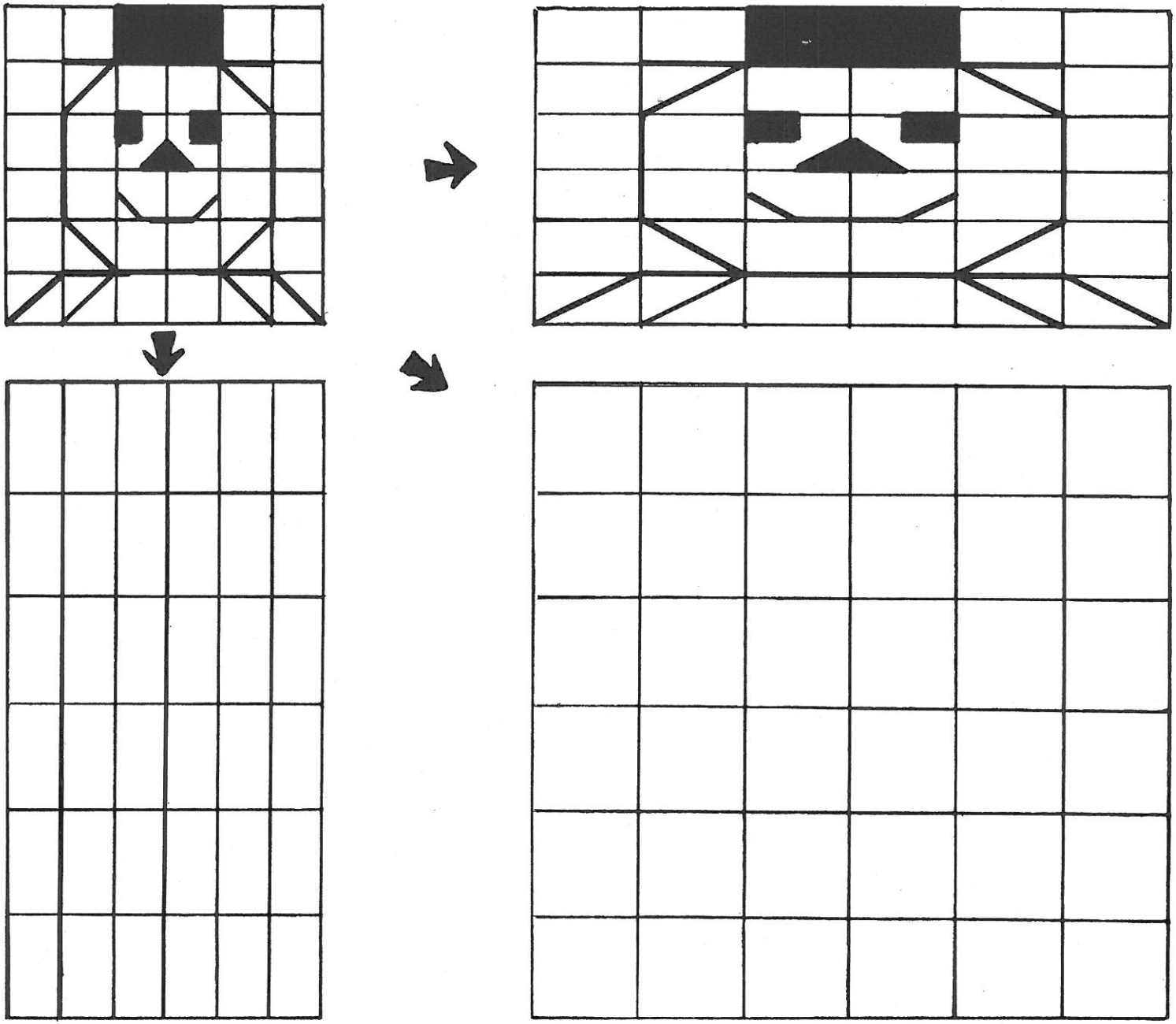
2) Use one copy of worksheet 0853A — plot the points A, B, C, D, E and F on each grid.
Join up each set of points.
Colour in each new shape.

3) Now use the other copy of worksheet 0853A. Draw a shape of your own on grid 1 and see how this changes. *Choose an easy shape which fits on the grid lines.*

How do the shapes change? *Talk about this!*

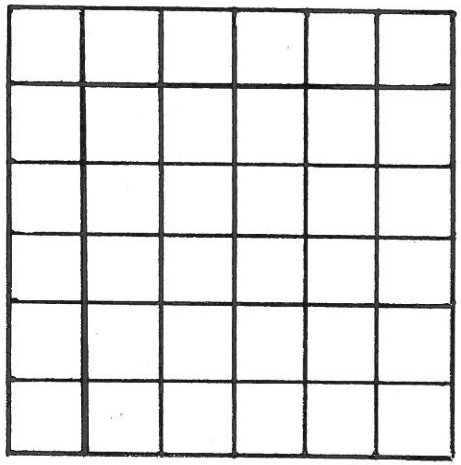
WORKSHEETS

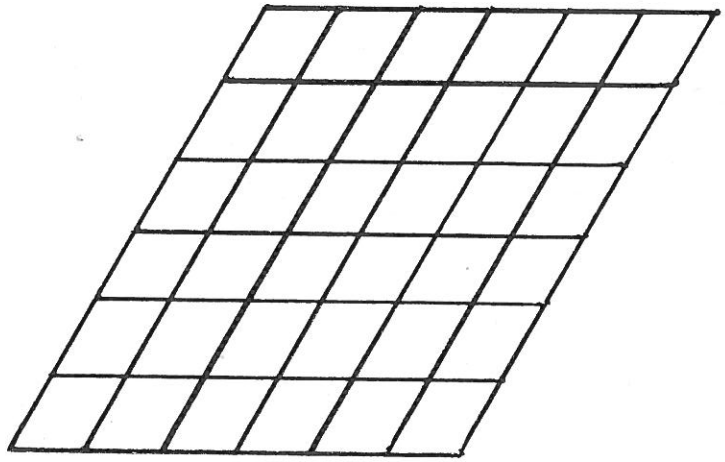
smile
0384

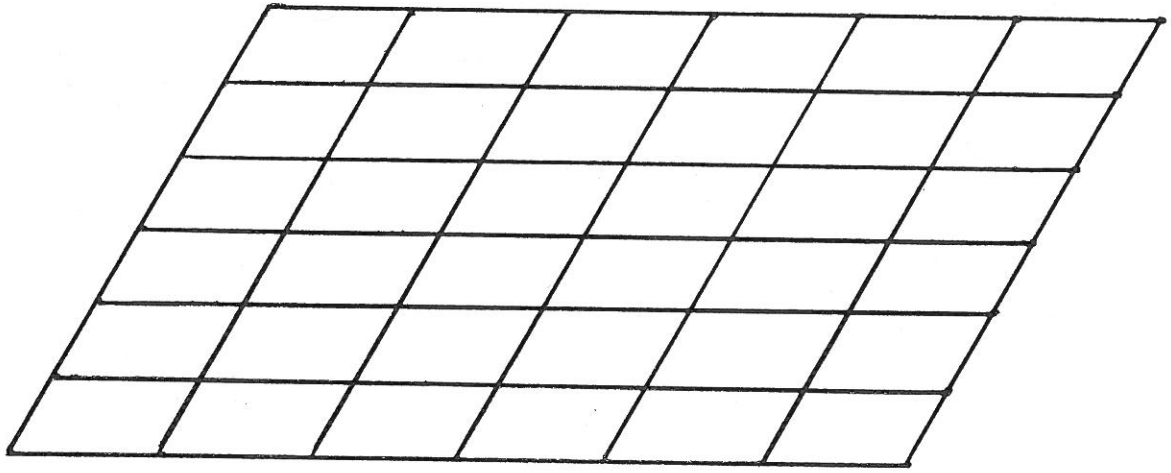


Turn over.

ilea
© 1975





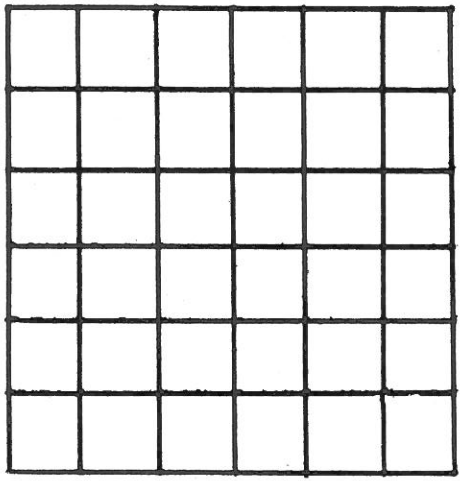


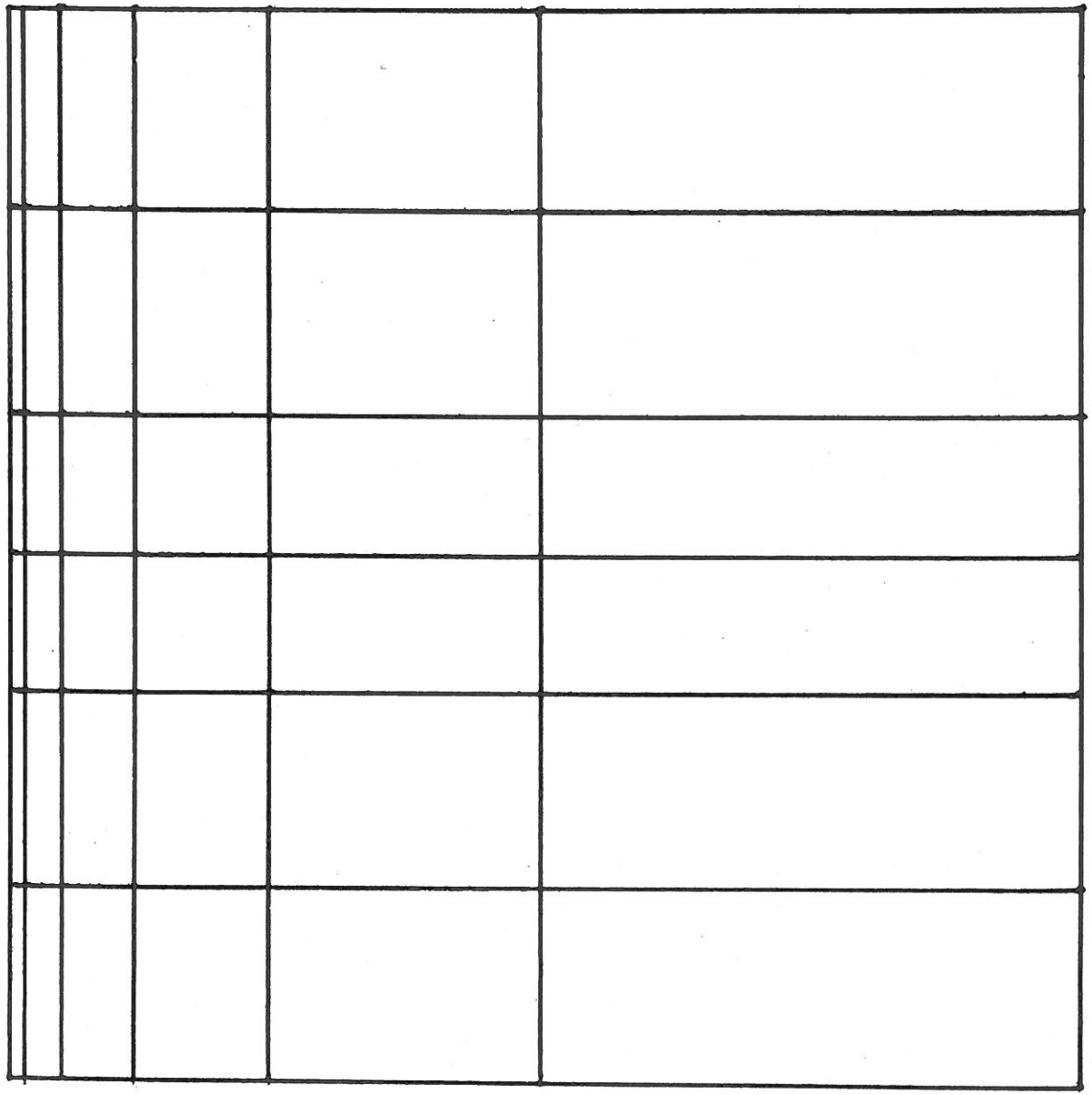
ilea
© 1975

smile

0384

Continued

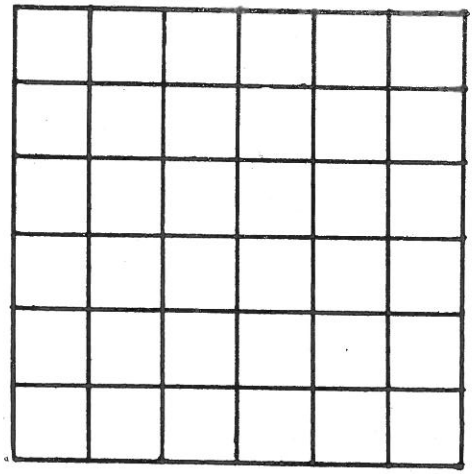


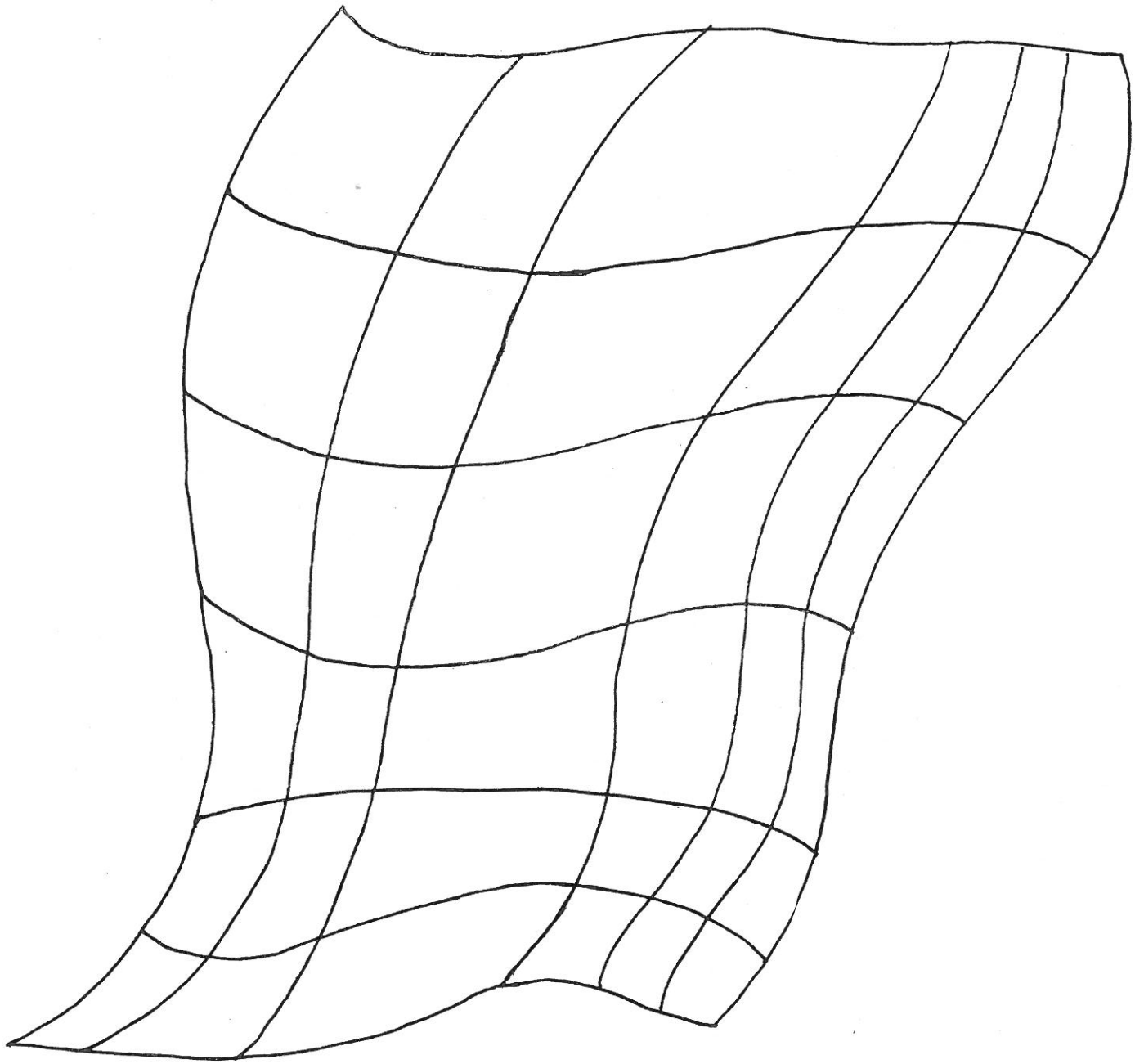


Turn over.

ilea

© 1975





ilea

© 1975

Cartoon Coordinates

Joining the coordinates listed on this side will give a drawing of a bear.
On the other side joining the coordinates will give a drawing of a landscape. Choose which one you want to do.

Bear

Draw a grid which goes across to 20 and up to 31.
Plot the points and join them up with a ruler as you go.
Stop at the end of each section.

(3,11)
(2,13)
(2,19)
(3,21)
(6,24)
(10,26)
(12,26)
(16,24)
(19,21)
(20,19)
(20,13)
(19,11)
STOP

(3,17)
(3,5)
(19,5)
(19,17)
STOP

(8,5)
(8,23)
STOP

(7,5)
(7,3)
STOP

(11,5)
(11,1)
STOP

(15,5)
(15,3)
STOP

(6,24)
(8,23)
(11,22½)
(14,23)
(16,24)
STOP

(3,21)
(5,26)
(6,28)
(10,30)
(12,30)
(16,28)
(17,26)
(19,21)
STOP

(18,29)
(10,31)
(12,31)
(14,29)
STOP

(5,1)
(17,1)
(17,2)
(16,3)
(14,3)
(11,2)
(8,3)
(6,3)
(5,2)
(5,1)
STOP

(3,12)
(5,12)
(5,7)
(3,7)
STOP

(19,12)
(17,12)
(17,7)
(19,7)
STOP

(11,24)
(10,25)
(12,25)
(11,24)
STOP

(7,20)
(7,21)
(6,21)
(6,19)
(7,19)
(7,20)
(15,20)
(15,21)
(16,21)
(16,19)
(15,19)
(15,20)
STOP

(7,15)
(7,16)
(6,16)
(6,14)
(7,14)
(7,15)
(15,15)
(15,16)
(16,16)
(16,14)
(15,14)
(15,15)
STOP

(7,10)
(7,11)
(6,11)
(6,9)
(7,9)
(7,10)
(15,10)
(15,11)
(16,11)
(16,9)
(15,9)
(15,10)
STOP

Two circles
at (9,25)
and (13,25)

Landscape

Draw a grid which goes across to 32 and up to 30.
Plot the points and join them up with a ruler as you go.
Stop at the end of each section.

(8,24)
(10,26)
(10,28)
(8,30)
(6,30)
(4,28)
(4,26)
(6,24)
STOP

(8,22)
(8,24)
STOP

(6,22)
(6,24)
STOP

(12,26)
(10,26)
STOP

(12,28)
(10,28)
STOP

(8,32)
(8,30)
STOP

(4,26)
(2,26)
STOP

(2,10)
(10,19)
(18,10)
STOP

(13,16)
(18,20)
(29,10)
STOP

(20,18)
(23,21)
(26,18)
(25,19)
(27,21)
(29,19)
STOP

(23,16)
(28,19)
(32,16)
STOP

(14,5)
(14,6)
(15,6)
(16,7)
(17,7)
(18,5)
(19,5)
(20,7)
(21,7)
(22,5)
(23,5)
(24,3)
(24,2)
(23,0)
(22,0)
(22,2)
(18,2)
(18,0)
(17,2)
(16,3)
(15,5)
(14,5)
STOP

(23,5)
(24,5)
(26,3)
(27,4)
(27,3)
(28,4)
(27,4)
STOP

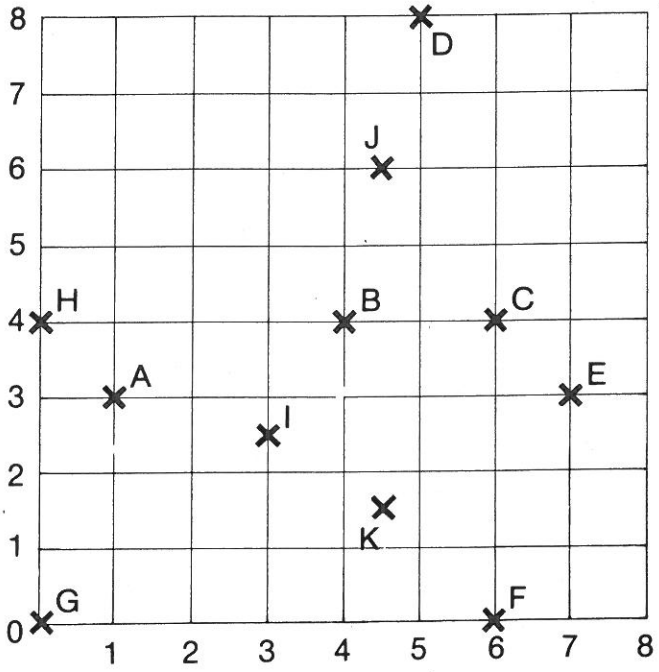
(1,8)
(13,8)
(13,10)
(14,10)
(14,8)
(22,8)
STOP

(4,28)
(2,28)
STOP

You will need cm squared paper

Smile **0262**

Co-ordinates 2



(1) Copy this grid on cm squared paper and mark on all the letters carefully.

(2) Find the point marked A.
To get to A. . . . . go across 1.
then go up 3.

(3) The co-ordinates of A are (1, 3). Is this the same as (3, 1)?
Why not?

(4) Write down the co-ordinates of all the points marked with letters.

(5) Mark these letters on your grid:-

L at (3, 7)	P at $(0, 6\frac{1}{2})$
M at (8, 0)	Q at $(7\frac{1}{2}, 7\frac{1}{2})$
N at $(2, 5\frac{1}{2})$	R at $(2\frac{1}{2}, 1\frac{1}{2})$

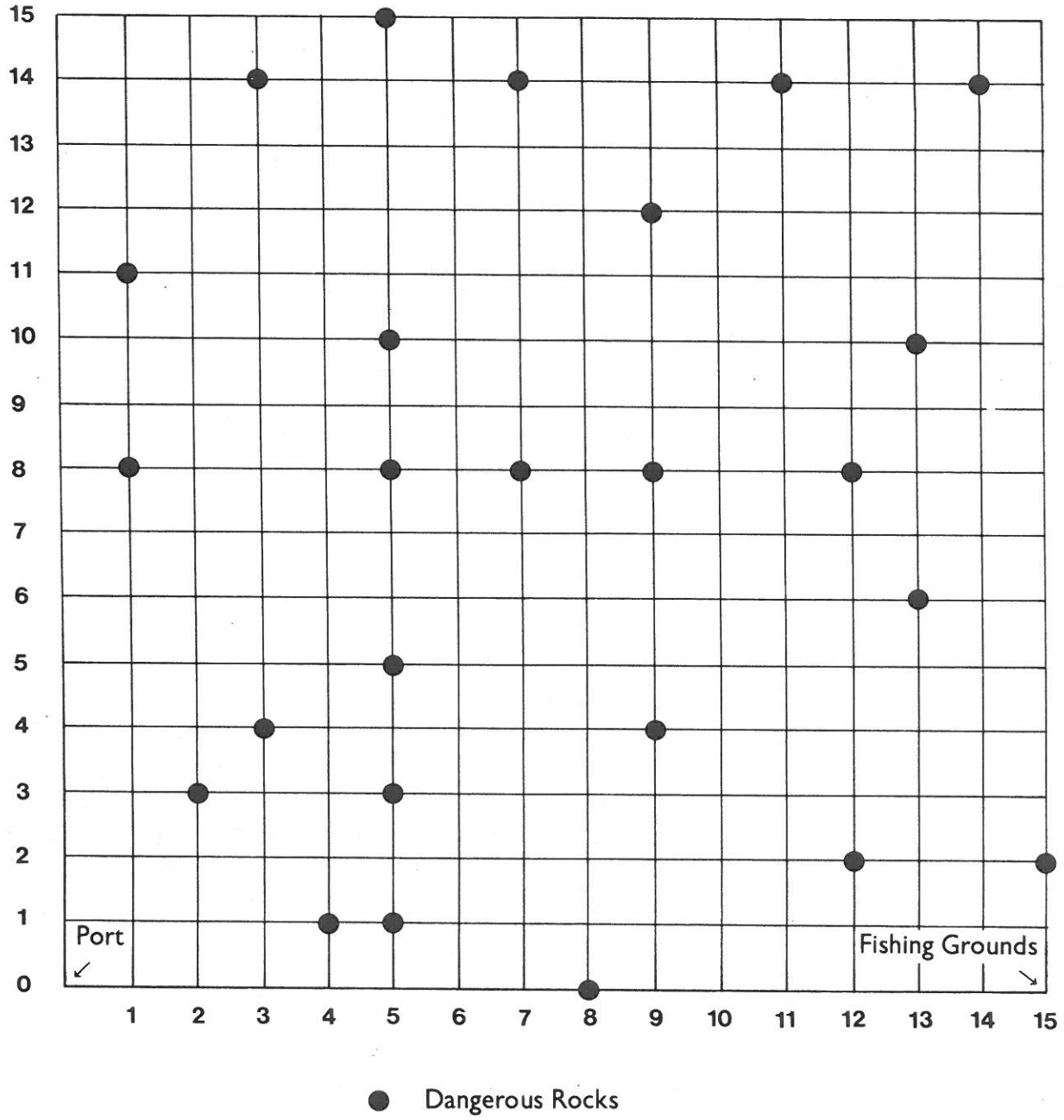
Fishing

A fisherman starts at the port (0, 0) and wants to navigate safely to his fishing grounds (15, 0).

He must always be more than one square away from any rock and he must stay on the grid lines.

1. Use tracing paper to find the fisherman's route.

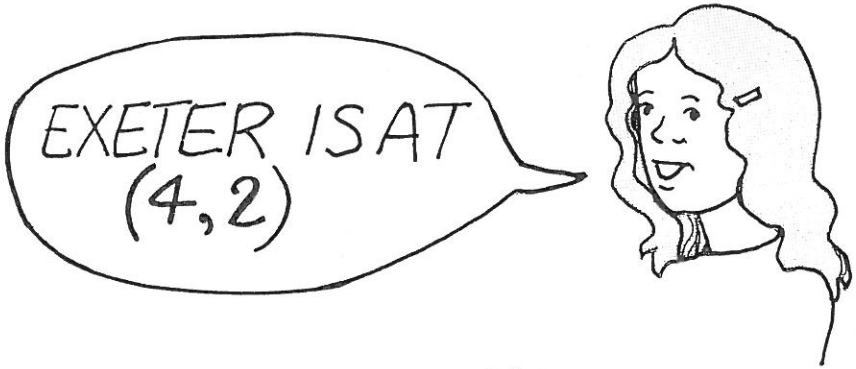
2. Write your answer using co-ordinates.
(0,0) → (0,6) → (■,■) →



Where's that Town?

Turn over to page 1 of the transparency book.

Turn over page 2 of the transparency book.

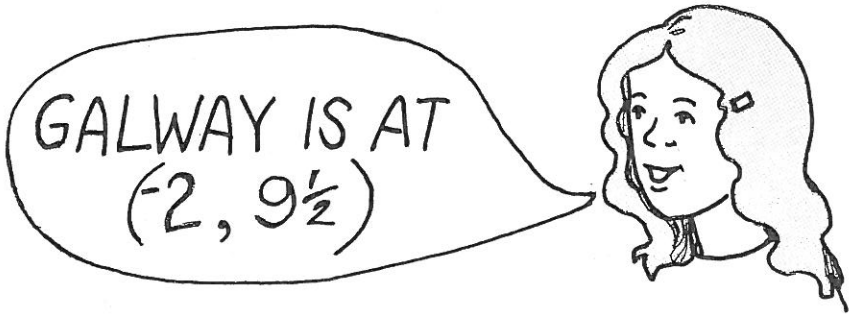


1. Use the grid to give the positions of the other towns in England and Wales.

Turn over page 3 of the transparency book.

2. What is the position of Dublin?

Turn over page 4 of the transparency book.

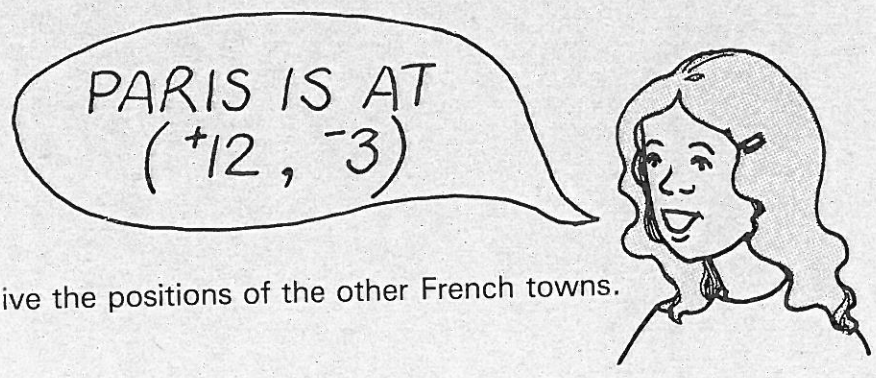


3. Give the positions of the other Irish towns.

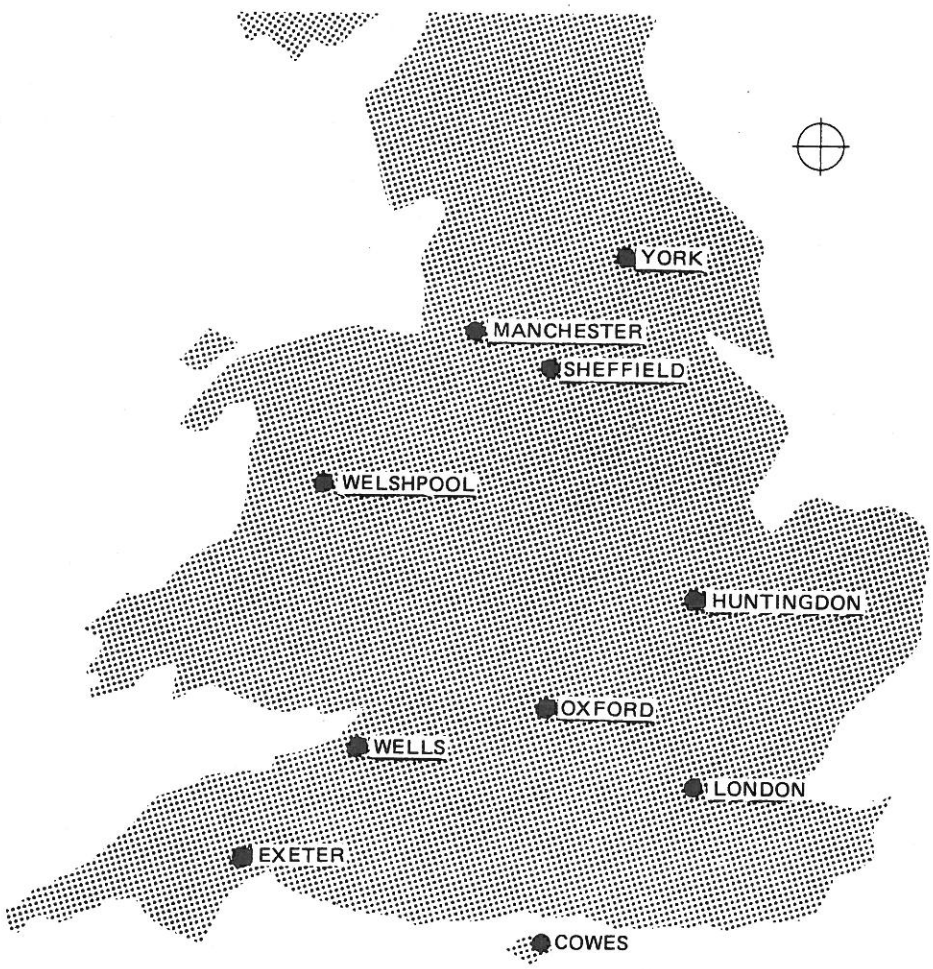
Turn over

Turn over page 5 of the transparency book.

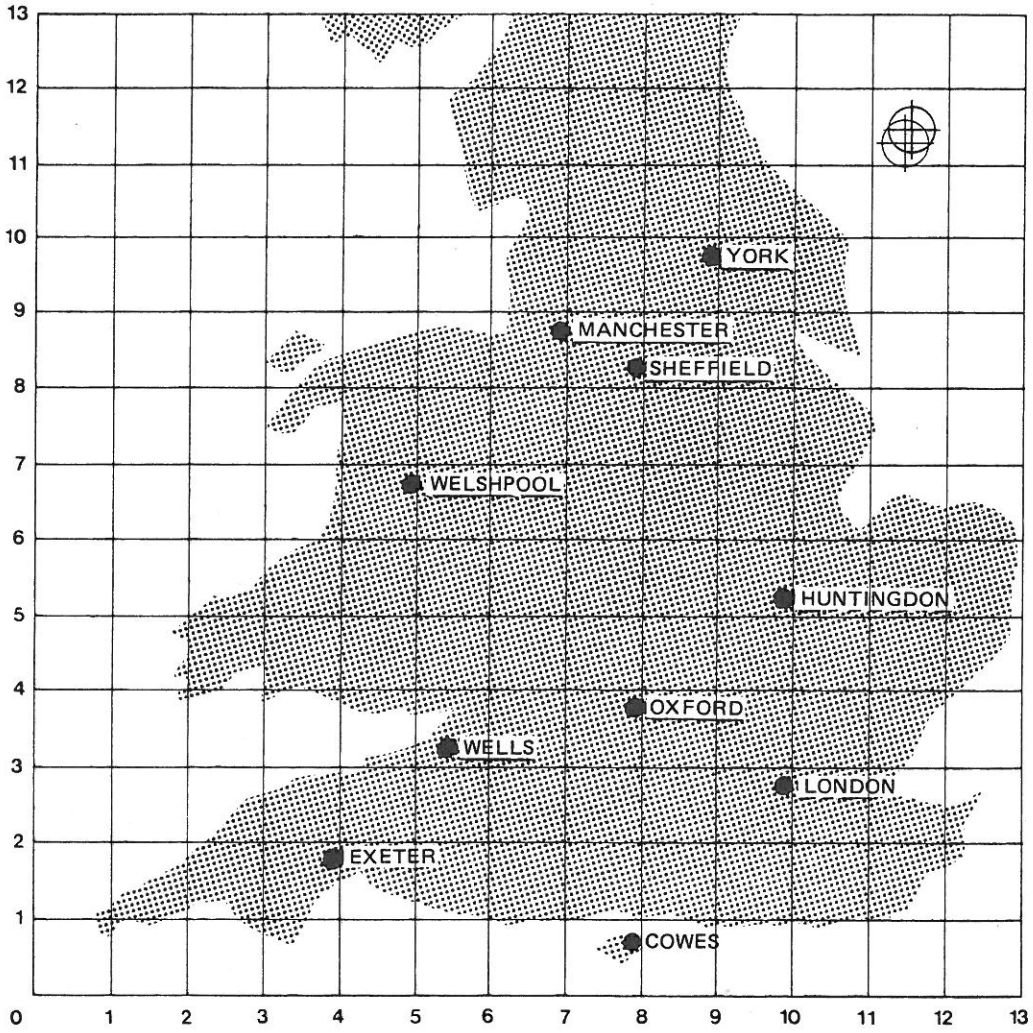
Turn over page 6 of the transparency book.



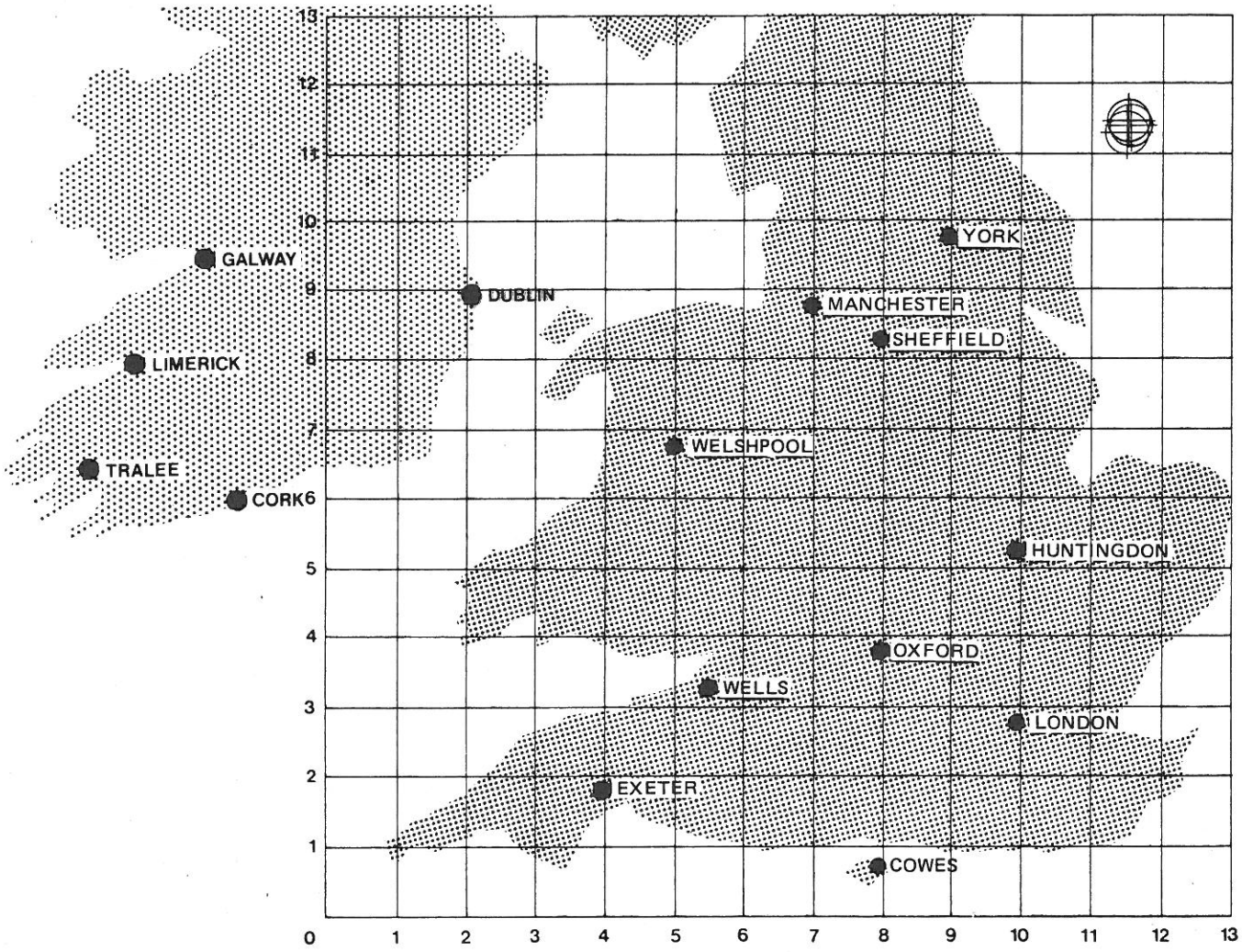
4. Give the positions of the other French towns.

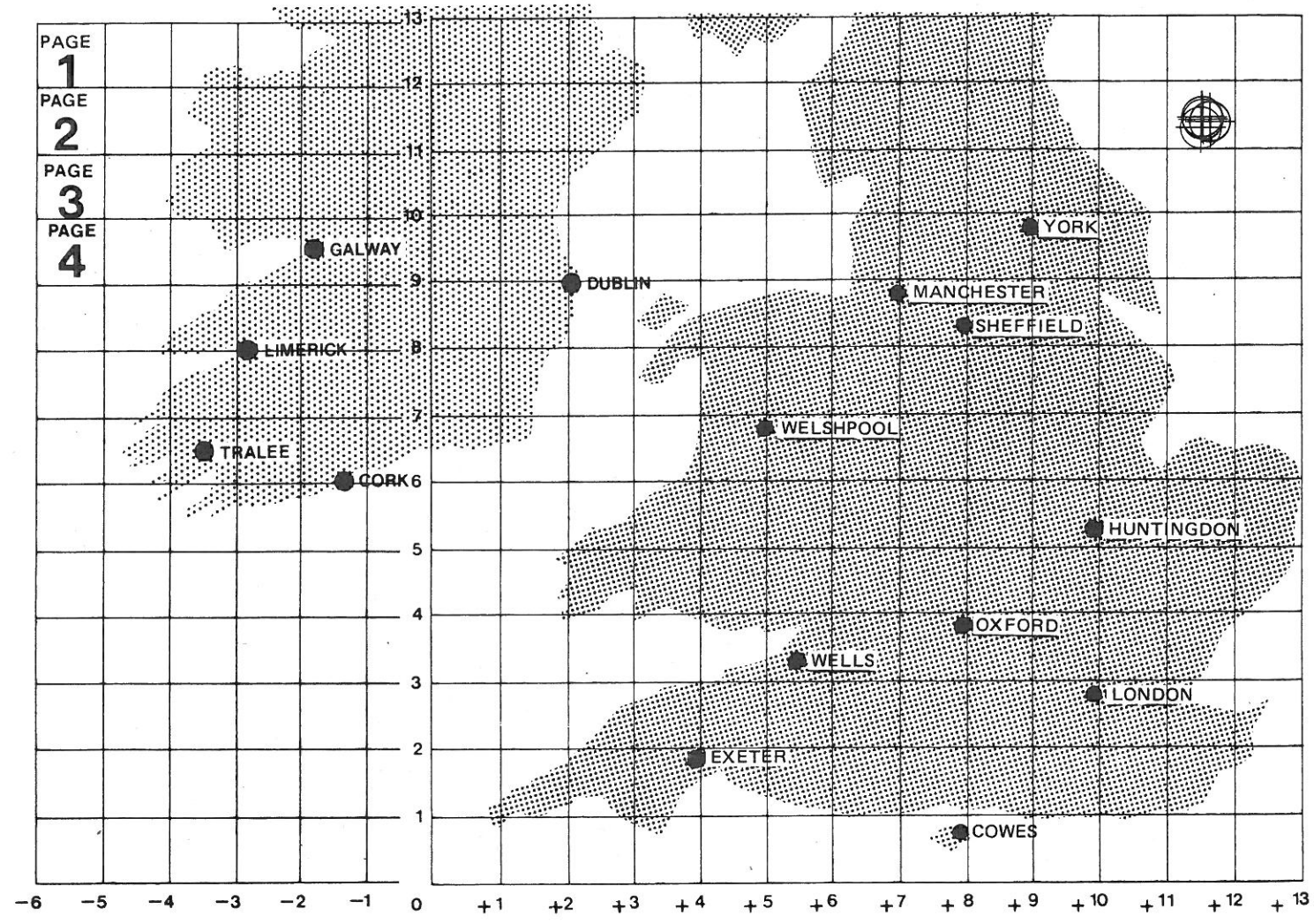

YORK
MANCHESTER
SHEFFIELD
WELSHPOOL
HUNTINGDON
OXFORD
WELLS
LONDON
EXETER
COWES

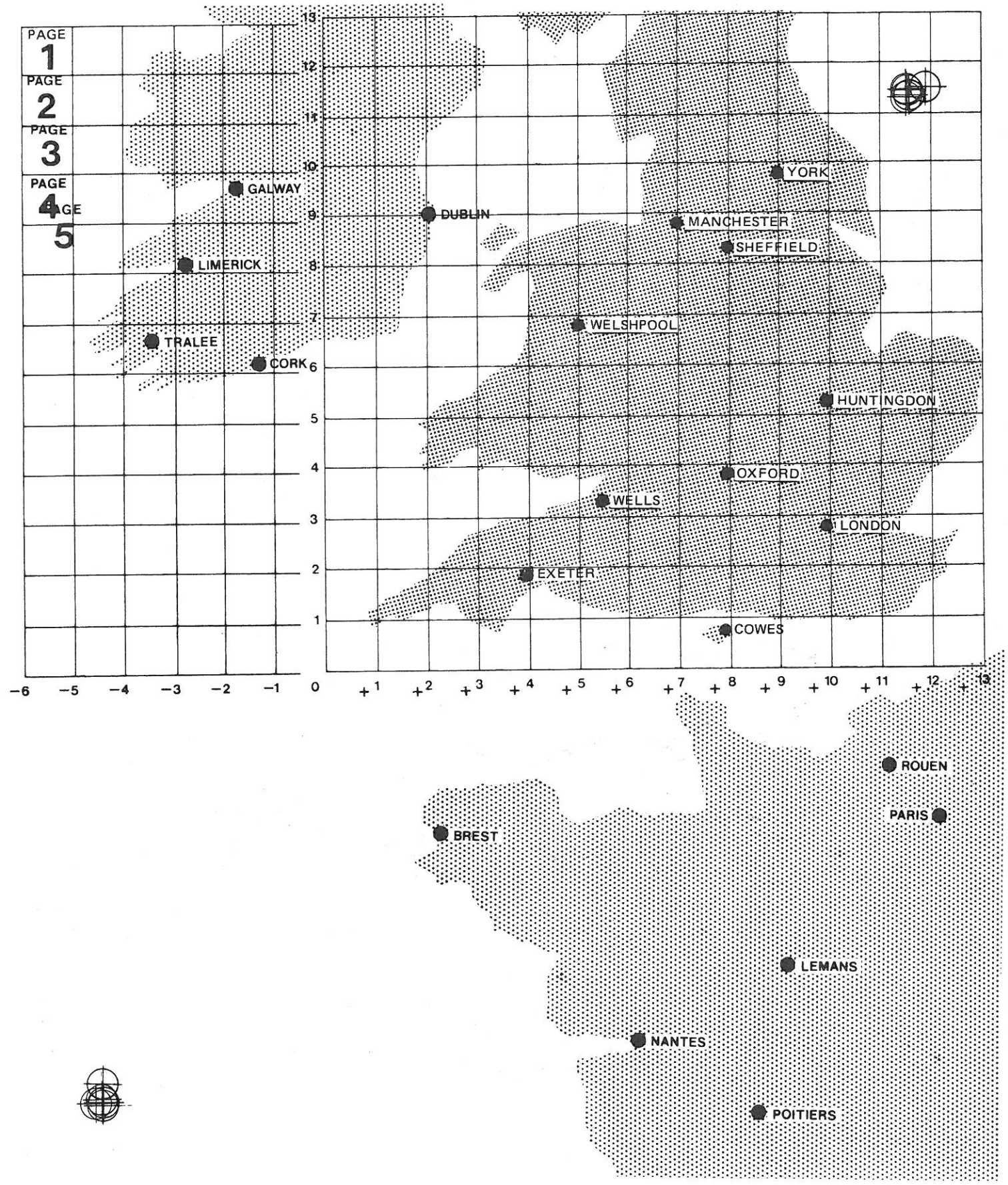
PAGE 1
PAGE 2

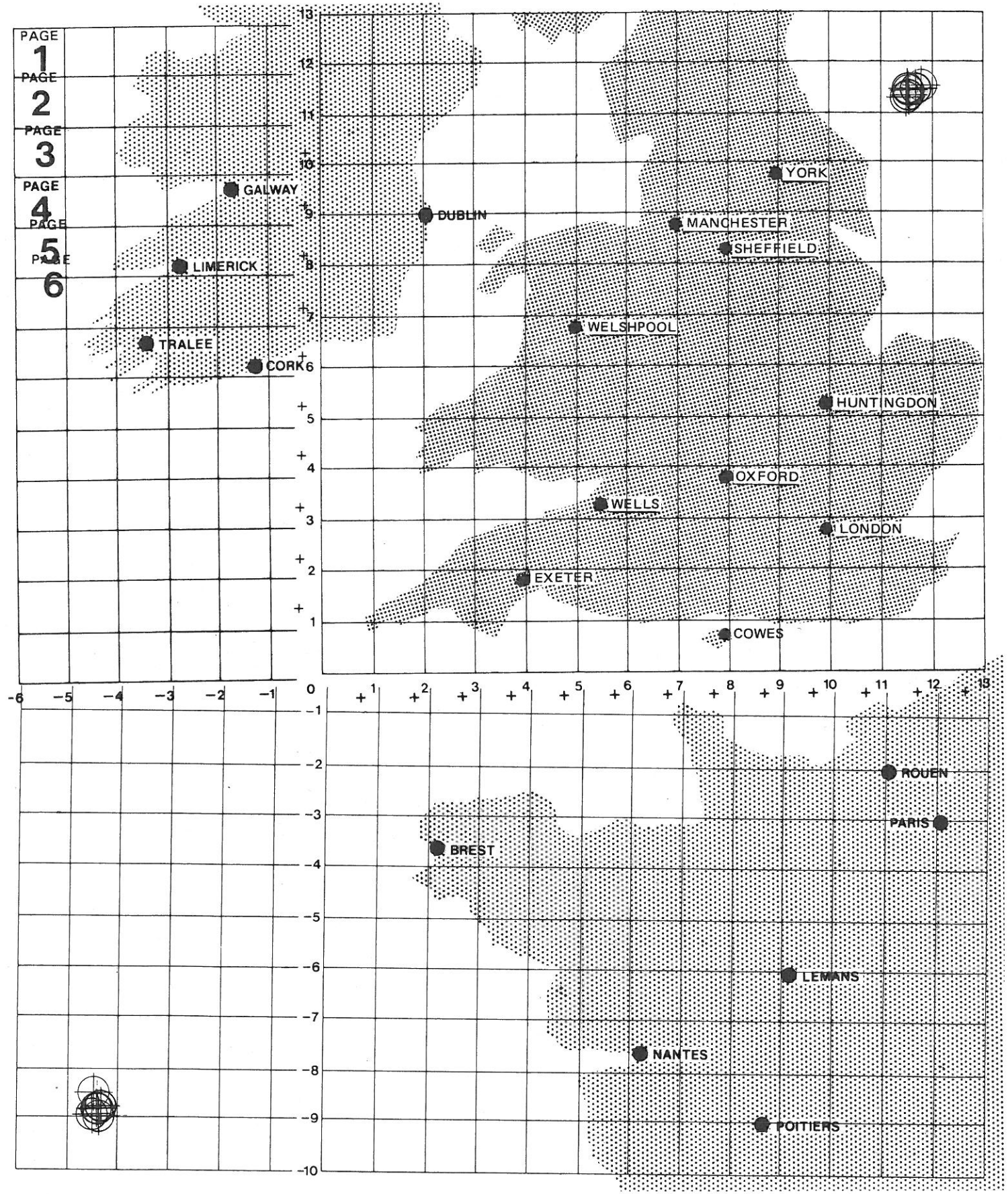

YORK
MANCHESTER
SHEFFIELD
WELSHPOOL
HUNTINGDON
OXFORD
WELLS
LONDON
EXETER
COWES
0 1 2 3 4 5 6 7 8 9 10 11 12 13
1 2 3 4 5 6 7 8 9 10 11 12 13

PAGE 1
PAGE 2
PAGE 3




PAGE 1
PAGE 2
PAGE 3
PAGE 4
GALWAY
DUBLIN
LIMERICK
TRALEE
CORK
YORK
MANCHESTER
SHEFFIELD
WELSHPOOL
HUNTINGDON
OXFORD
WELLS
LONDON
EXETER
COWES
13
12
11
10
9
8
7
6
5
4
3
2
1
0
−6
−5
−4
−3
−2
−1
+1
+2
+3
+4
+5
+6
+7
+8
+9
+10
+11
+12
+13


PAGE 1
PAGE 2
PAGE 3
PAGE 4
PAGE 5
GALWAY
DUBLIN
LIMERICK
TRALEE
CORK
YORK
MANCHESTER
SHEFFIELD
WELSHPOOL
HUNTINGDON
OXFORD
WELLS
LONDON
EXETER
COWES
ROUEN
PARIS
BREST
LEMANS
NANTES
POITIERS
-6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 +11 +12 +13
1 2 3 4 5 6 7 8 9 10 11 12 13


PAGE 1
PAGE 2
PAGE 3
PAGE 4
PAGE 5
PAGE 6
GALWAY
DUBLIN
LIMERICK
TRALEE
CORK
YORK
MANCHESTER
SHEFFIELD
WELSHPOOL
HUNTINGDON
OXFORD
WELLS
LONDON
EXETER
COWES
ROUEN
PARIS
BREST
LEMANS
NANTES
POITIERS

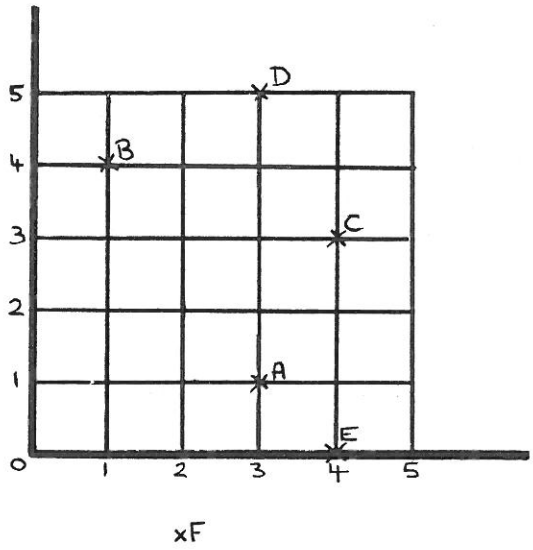
You will need: cm. Squared paper

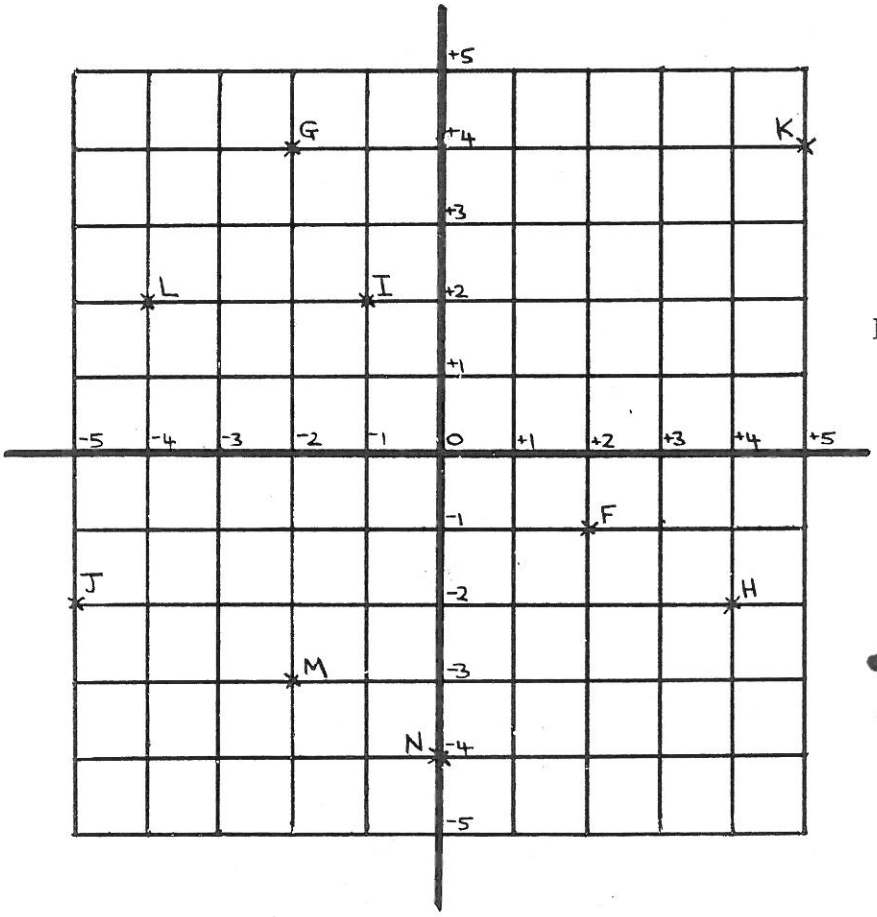
All Co-ordinates

(1) The co-ordinates of A are (3, 1)

What are the co-ordinates of
B, C, D, E, F and G?

F and G are difficult unless you extend the axes backwards....





Now, using directed numbers,
F is at (+2, -1)
G is at (-2, +4)

Just as before, the rule is

GO ACROSS FIRST,
THEN UP (OR DOWN)

(2) What are the co-ordinates of H, I, J, K, L, M and N?

(3) Draw axes on squared paper. Mark on these points:

P at (+3,-3)	T at (+4,+2)	X at (0,-3)
Q at (-4,+3)	U at (+5,-4)	Y at (+5,0)
R at (-5,-4)	V at (-3,0)	Z at (-2,+1)
S at (-3,+5)	W at (-4,-1)	

ilea
© 1975