COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

28 October 2025

Week 10, Day 2

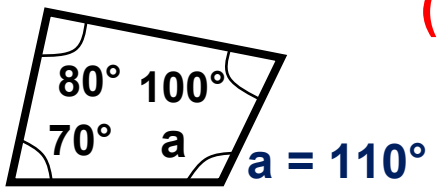
COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

DRILL:

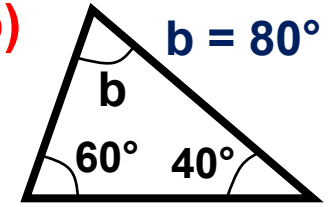
1) Work out the value of the missing angles below:

(a)



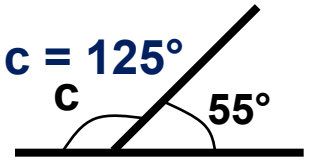
a = 110°

(b)



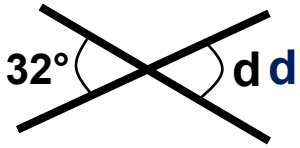
b = 80°

(c)



c = 125°

(d)



d = 32°

2) Work out the value of 3e -1 when e = 2

= 3x 2 - 1 (Replace e with 2)

= 5

3) Expand: **(a)** 4(m + 5) = 4m + 20

(b) y(y - 3) = y^2 - 3y

4) Solve: 3x + 1 = 13

−1 −1

3x = 12

÷3 ÷3

x = 4

EXTENSION

1)(a) Fill in the possibility space for the sum of two dice below:

+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

(b) What is the probability of scoring a 7 when two fair dice are rolled?

$= \frac{6}{36} = \frac{1}{6}$

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

Success Criteria:

I can plot the coordinates in first quadrant

I can plot the coordinates in all four quadrants

I can solve problems with coordinates.

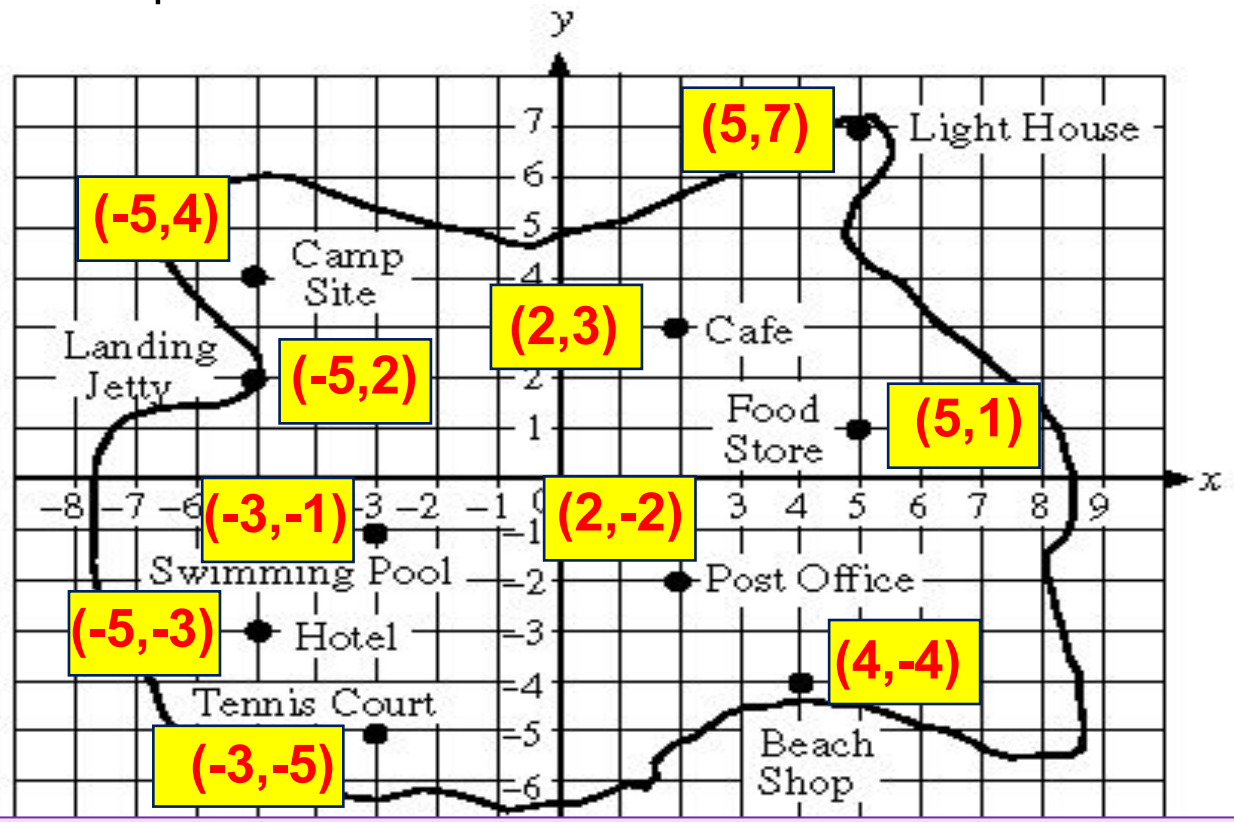
STARTER:

(x , y)

Left (-) or Right (+) Up (+) or down (-)

Along the corridor and up or down the stairs

The picture shows a map of an island. Write down the coordinates of all the places.

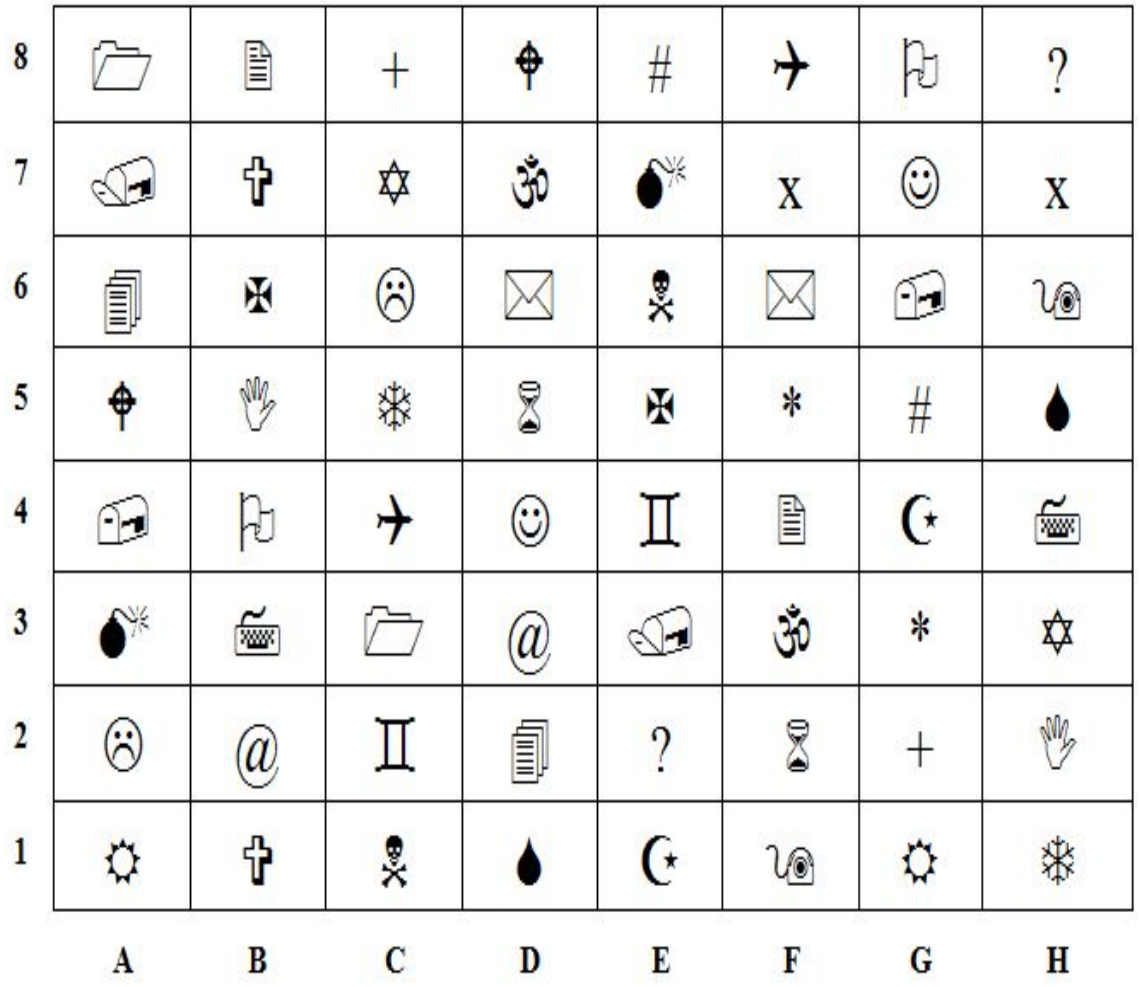


Key words: Coordinate Point Quadrant Origin

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

KEY CONCEPT: Look very carefully at the grid and see if you can find the missing partners.

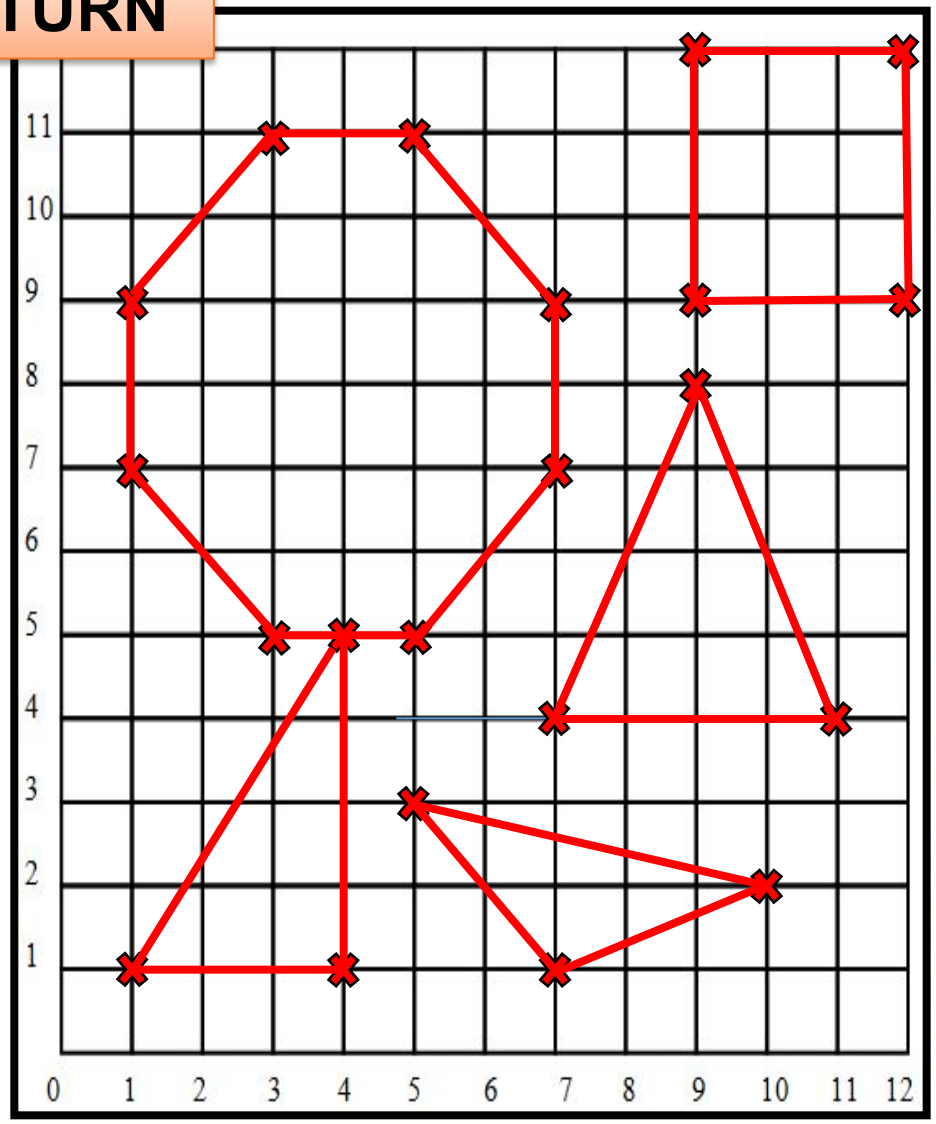


	Co-ordinates	Partner		Co-ordinates	Partner
1)	(A,8)	(C,3)	17)	(H,2)	(B,5)
2)	(G,4)	(E,1)	18)	(F,7)	(H,7)
3)	(B,2)	(D,3)	19)	(D,1)	(H,5)
4)	(A,6)	(D,2)	20)	(E,4)	(C,2)
5)	(C,6)	(A,2)	21)	(G,6)	(A,4)
6)	(C,1)	(E,6)	22)	(F,8)	(C,4)
7)	(H,1)	(C,5)	23)	(D,5)	(F,2)
8)	(A,1)	(G,1)	24)	(H,8)	(E,2)
9)	(F,3)	(D,7)	25)	(B,7)	(B,1)
10)	(B,8)	(F,4)	26)	(G,3)	(F,5)
11)	(D,4)	(G,7)	27)	(A,7)	(E,3)
12)	(A,5)	(D,8)	28)	(H,3)	(C,7)
13)	(G,2)	(C,8)	29)	(E,8)	(G,5)
14)	(B,4)	(G,8)	30)	(A,3)	(E,7)
15)	(F,6)	(D,6)	31)	(F,1)	(H,6)
16)	(B,3)	(H,4)	32)	(E,5)	(B,6)

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

YOUR TURN



1. Plot each pair of coordinates and join them to the next pair to make shapes.
   Name each shape as accurately as possible.

a) (1, 1) (4, 1) (4, 5)
Shape name = **Right angled triangle**

b) (7, 1) (10, 2) (5, 3)
Shape name = **Scalene triangle**

c) (7, 4) (11,4) (9, 8)
Shape name = **Isosceles triangle**

d) (9, 9) (12, 9) (12, 12) (9, 12)
Shape name = **Square**

e) (3, 5) (5, 5) (7, 7) (7, 9) (5, 11) (3, 11) (1, 9) (1, 7)
Shape name = **Octagon**

2. Can you draw your own shape on the grid and write down the coordinates you used to plot the shape.
Make sure you can name the shape!

Coordinates used are: _____

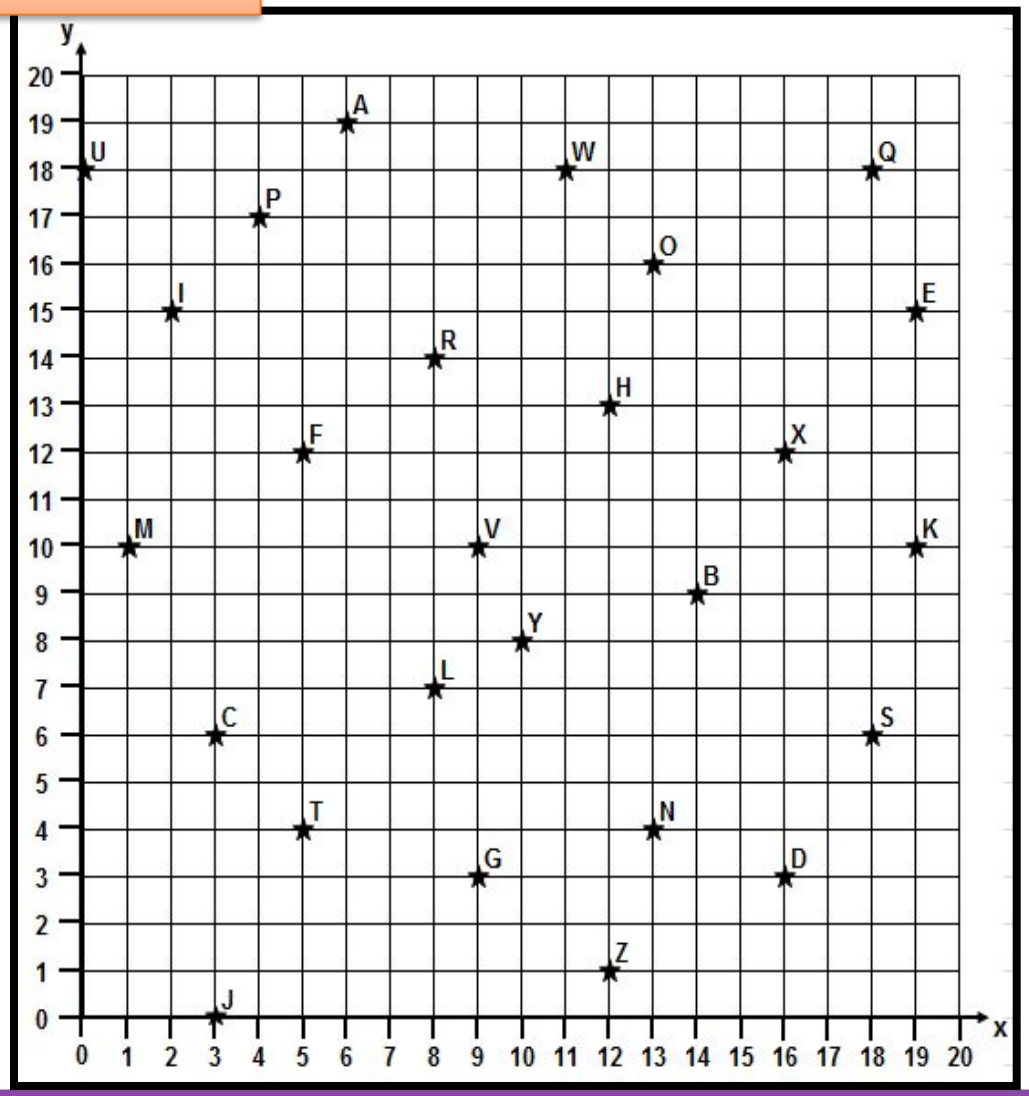
Shape name = _____

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

PAIR TASK

CODEBREAKER



A MESSAGE FROM YOUR TEACHER

(10,8) (13,16) (0,18) (6,19) (8,14) (19,15)

Y O U A R E

(9,3) (13,16) (13,16) (16,3) (6,19) (5,4)

G O O D A T

(5,4) (12,13) (2,15) (18,6)

T H I S

A MESSAGE FROM YOU TO A FRIEND IN MATHS

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

MINI PLENARY:

True or false. When plotting coordinates:

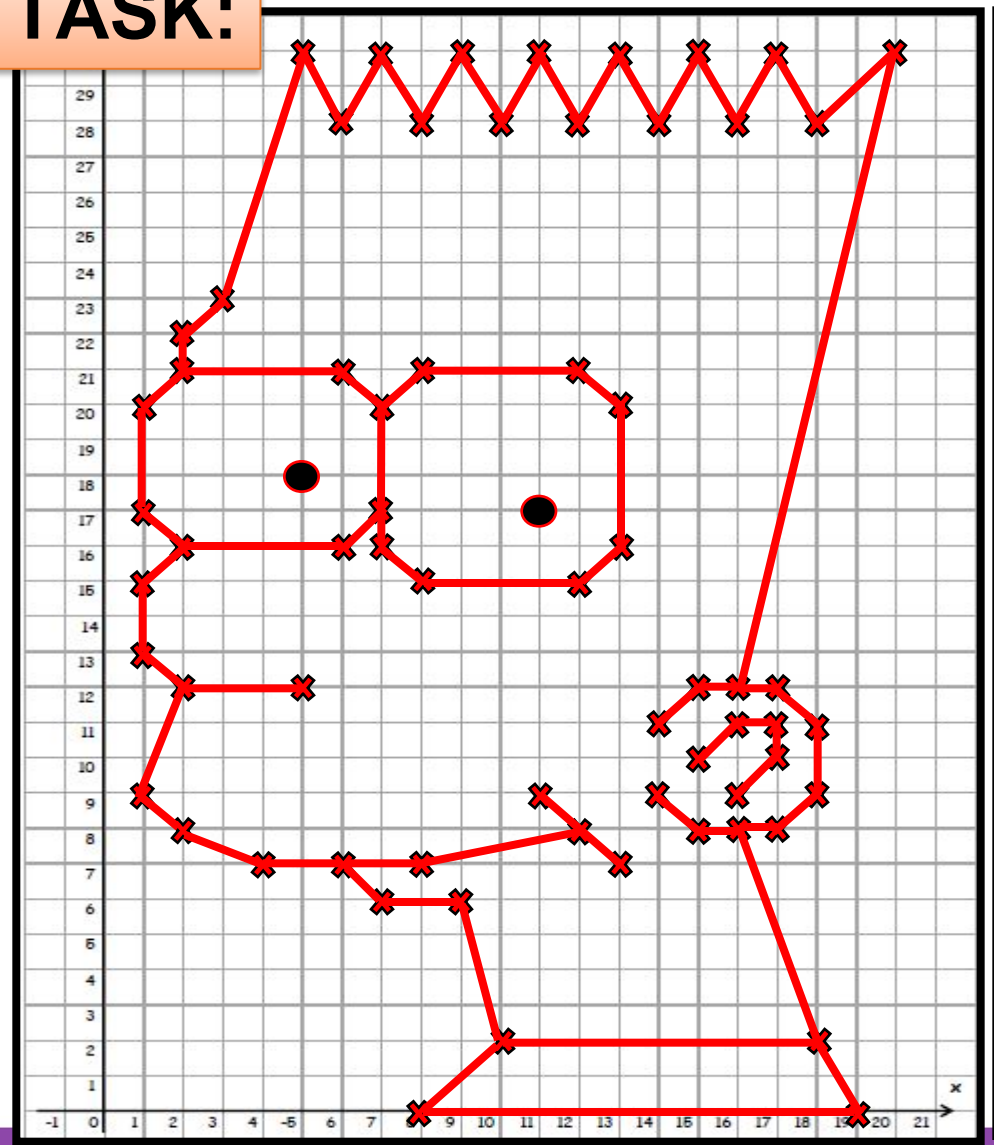
1) It doesn't matter which axes you use first.
2) The first number is the x value.
3) The x value has to be less than or equal to the y value.
4) The coordinate (2,1) is the same as (1,2).

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

CORE TASK:

1



Plot the coordinates in each section and then join them in the order they are written down.

Each section is a separate part of the picture.

Section 1:

(10,12), (18,12), (19,9), (8,9), (10,12), (9,8), (7,6), (6,7), (4,7), (2,9), (1,9), (2,12), (1,13), (1,15), (2,16), (1,17), (1,20), (2,21), (2,22), (3,23), (5,20), (6,28), (7,30), (8,28), (9,30), (10,28), (11,30), (12,28), (13,30), (14,28), (15,30), (16,28), (17,30), (18,28), (20,30), (16,12), (17,12), (18,11), (18,9), (17,8), (16,8), (18,12)

Section 2:

(2,16), (6,16), (7,17), (7,18), (8,18), (12,15), (13,16), (13,20), (12,21), (8,21), (7,20), (6,21), (2,21)

Section 3:

(6,7), (8,7), (12,8)

Section 4:

(15,10), (16,11), (17,11), (17,10), (16,9)

Section 5:

(14,11), (15,12), (16,12)

Section 6:

(14,9), (15,8), (16,8)

Now join up:

(7,17) to (7,20)

(2,12) to (5,12)

(11,8) to (13,7)

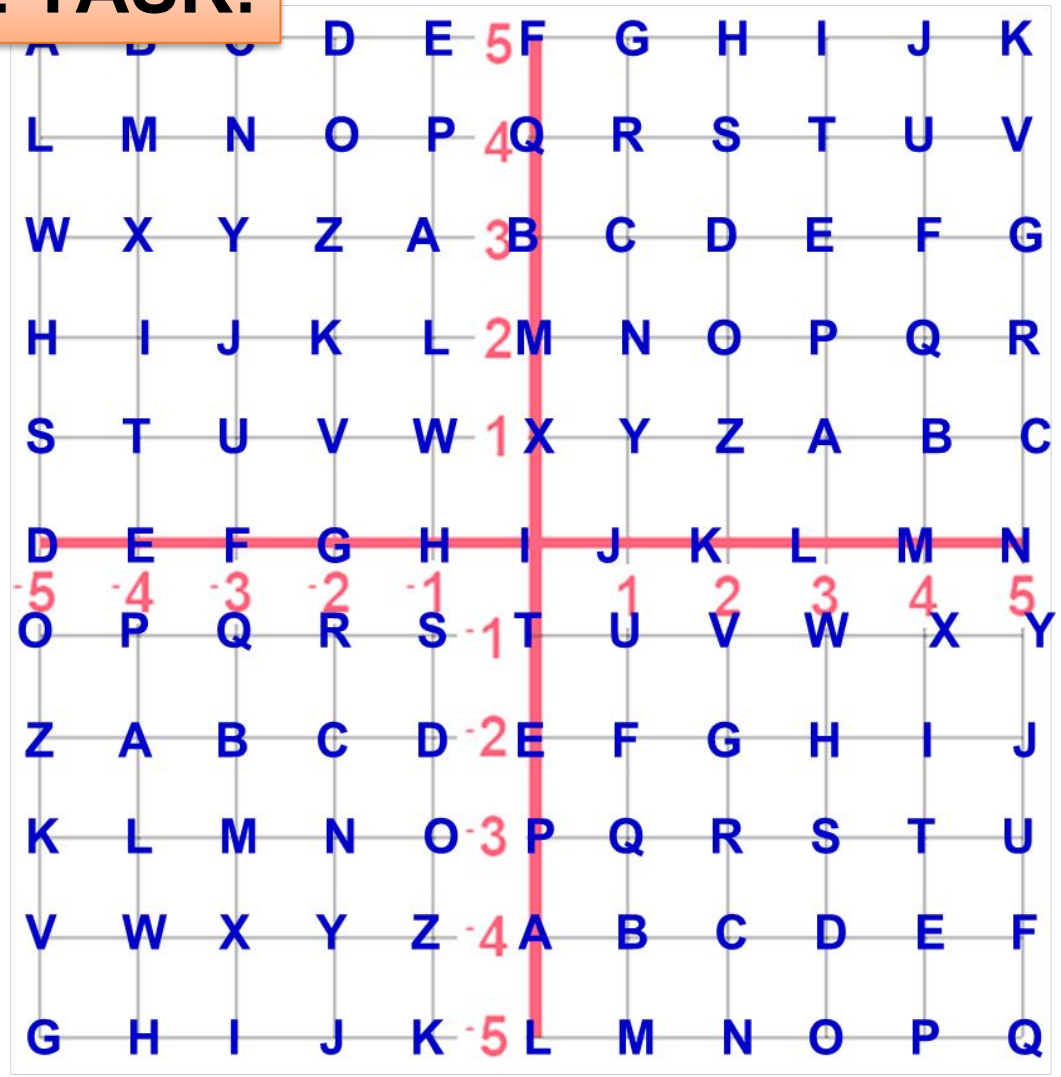
Now put dots at (5,16) and (11,17) to finish the eyes.

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

CORE TASK:

2



Decode the following coordinates:

(a) (3,2), (2,2), (0,0), (5,0), (3,4)

P O I N T

(b) (-1,3), (-4,3), (4,-2), (3,-3)

A X I S

(c) (-5,-1), (-2,-1), (-3,-5), (-2,0), (4,-2), (-2,-3)

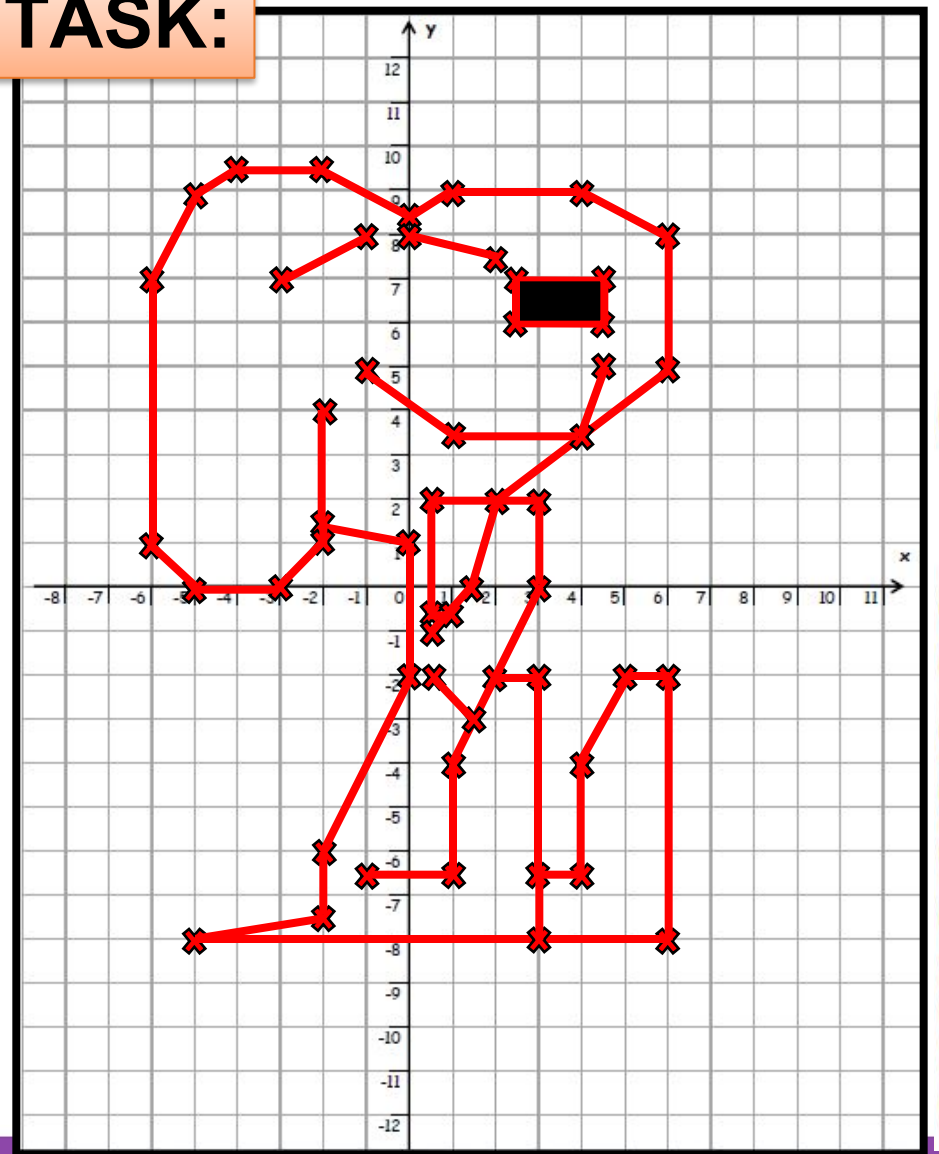
O R I G I N

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

CORE TASK:

3



Plot each point, joining them up as you plot them USING A RULER. Stop at each * and start again on the next section. *DO NOT JOIN TOGETHER THE LAST POINT OF ONE SECTION WITH THE FIRST ONE OF THE NEXT SECTION.*

(a) (2, -2) (3, -2) (3, -6½) (4, -6½) (4, -4) (5, -2) (6, -2) (6, -8) (-5, -8) (-2, -7½) (-2, -6) (0, -2) (0, 1) (-2, 1½) (-2, 1) (-3, 0) (-5, 0) (-6, 1) (-6, 7) (-5, 9) (-4, 9½) (-2, 9½) (0, 8½) (1, 9) (4, 9) (6, 8) (6, 5) (2, 2) (3, 2) (3, 0) (1, -4) (1, -6½) (-1, -6½)*

(b) (3, -6½) (3, -8)*

(c) (1½, -5) (½, -2)*

(d) (2, 2) (½, 2) (½, -½) (1, -½)*

(e) (½, -1) (1½, 0) (2, 2)*

(f) (-2, 1½) (-2, 4)*

(g) (-3, 7) (-1, 8)*

(h) (0, 8) (2, 7½)*

(i) (2½, 6) (2½, 7) (4½, 7) (4½, 6) (2½, 6)* (Colour this bit in black)

(j) (4½, 5) (4, 3½)*

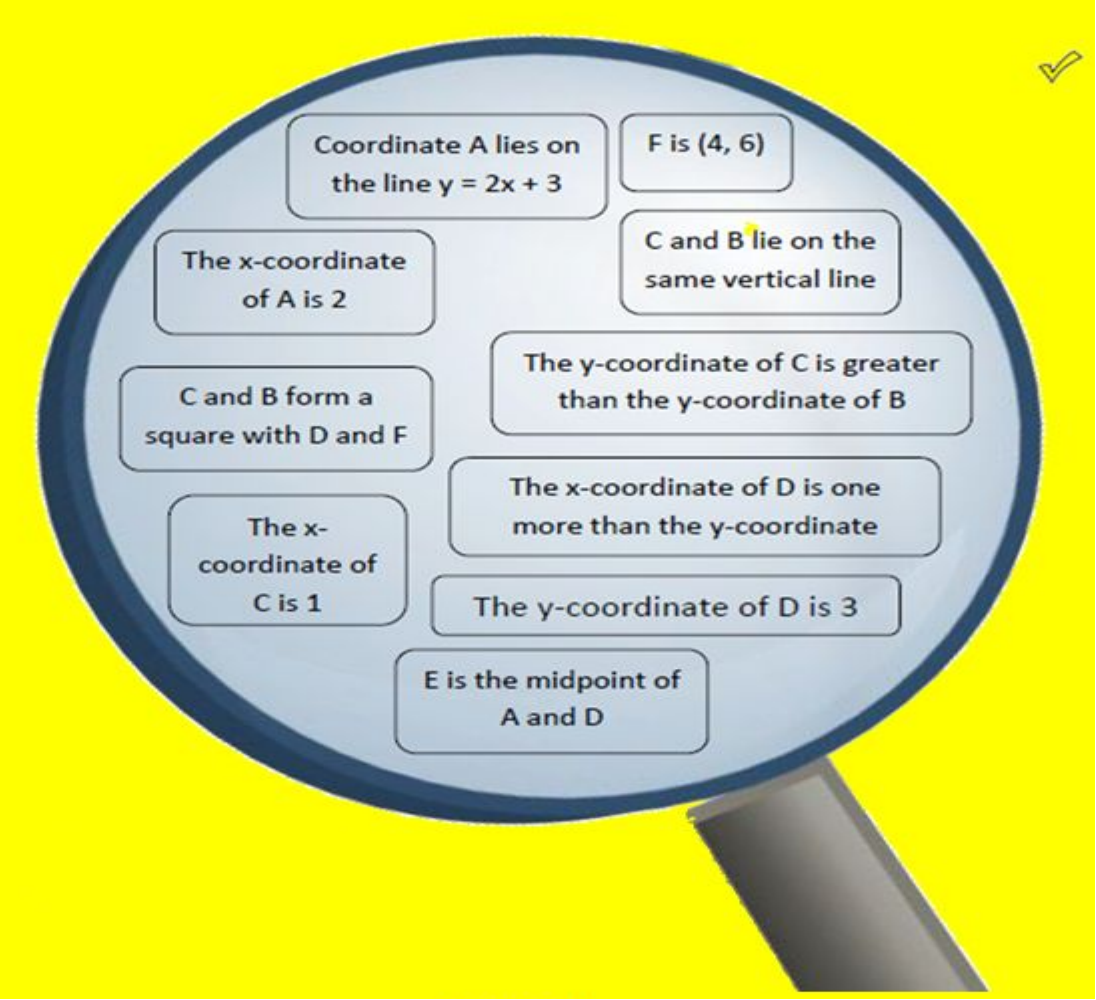
(k) (4, 3½) (1, 3½) (-1, 5)*

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

EXTENSION TASK:

Use the clues to work out the location of coordinates A, B, C, D, E and F.



Answers

A) (2, 7)
B) (1, 3)
C) (1, 6)
D) (4, 3)

COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

PLENARY:

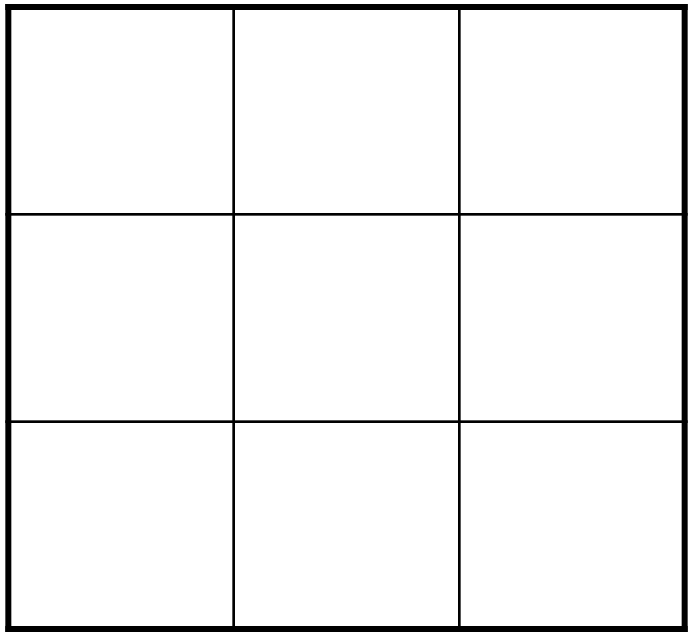
Draw a 3 by 3 grid in your books and fill in with any of the following numbers:

-4 -3 -2.5 -2

-1.5 -1 0 1

1.5 2 2.5 3

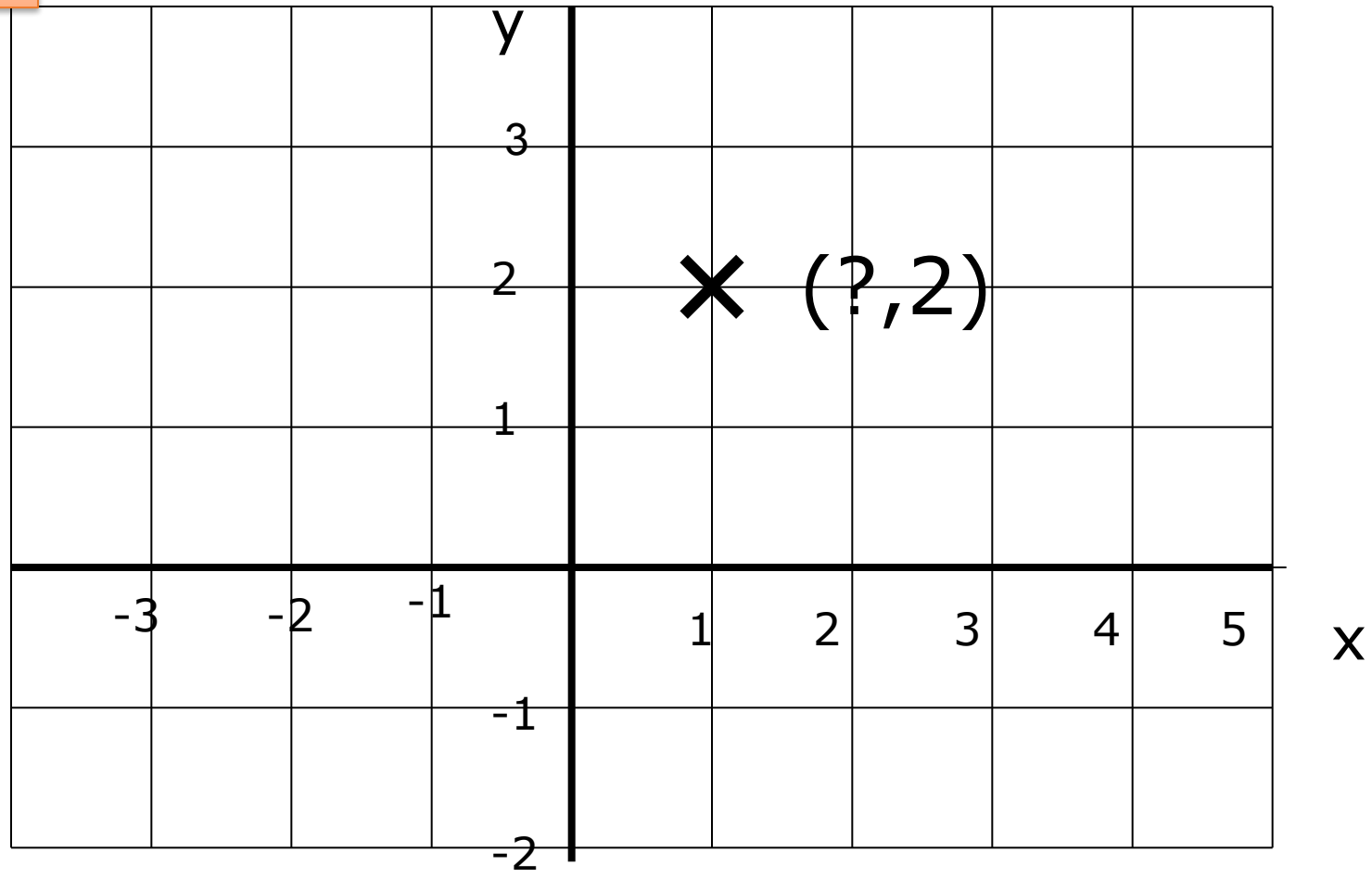
3.5 4 5



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

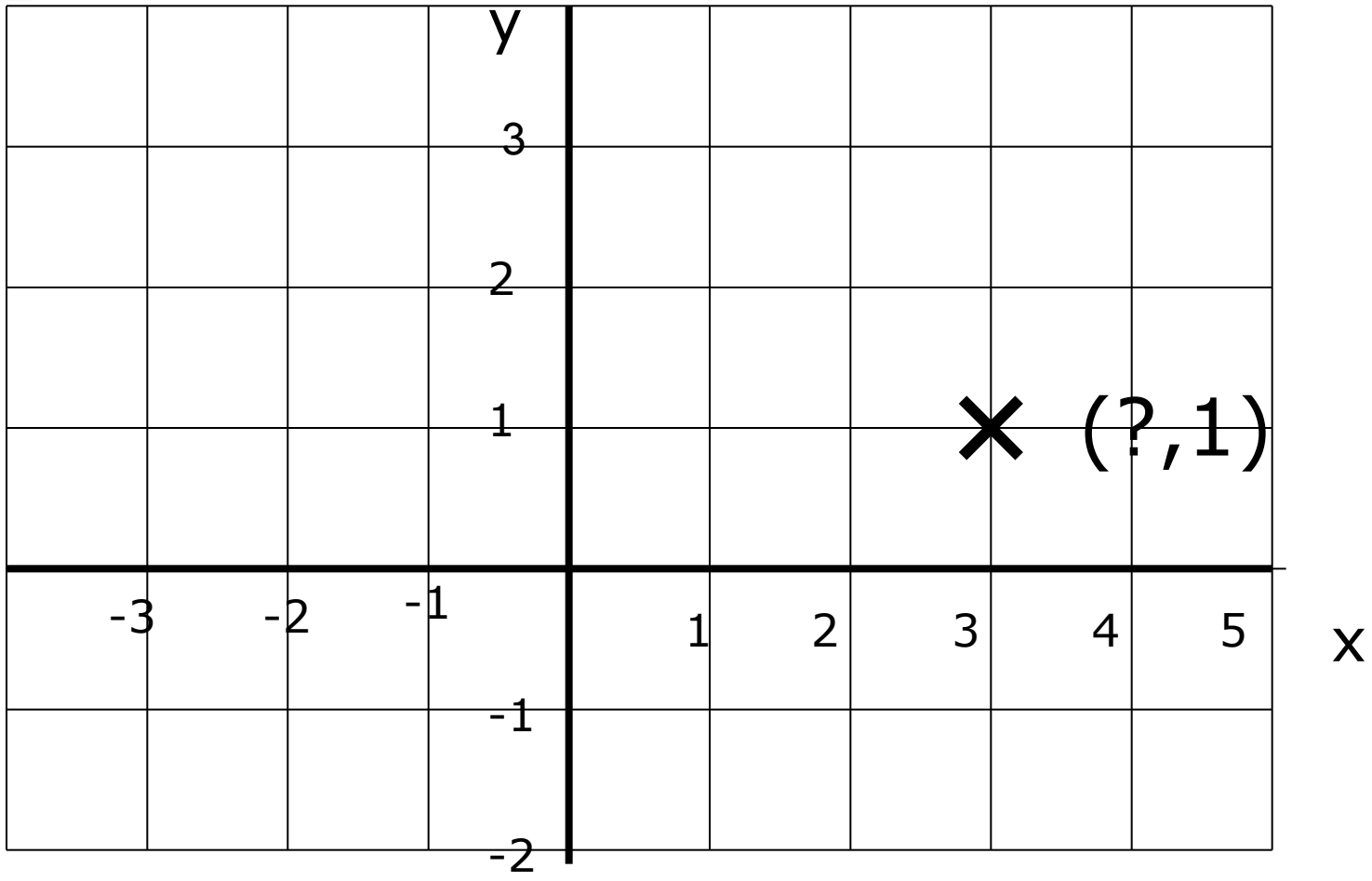
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

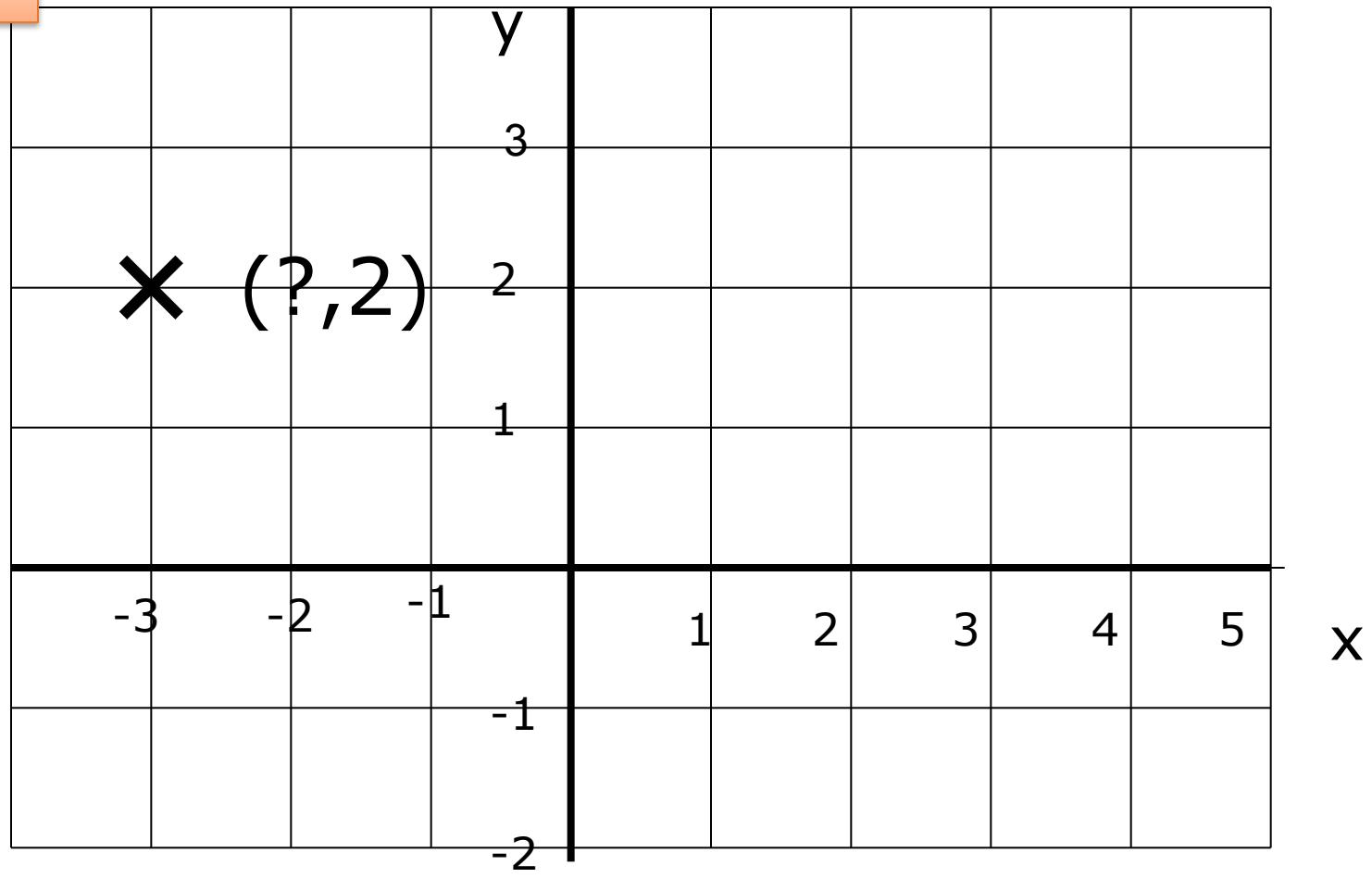
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

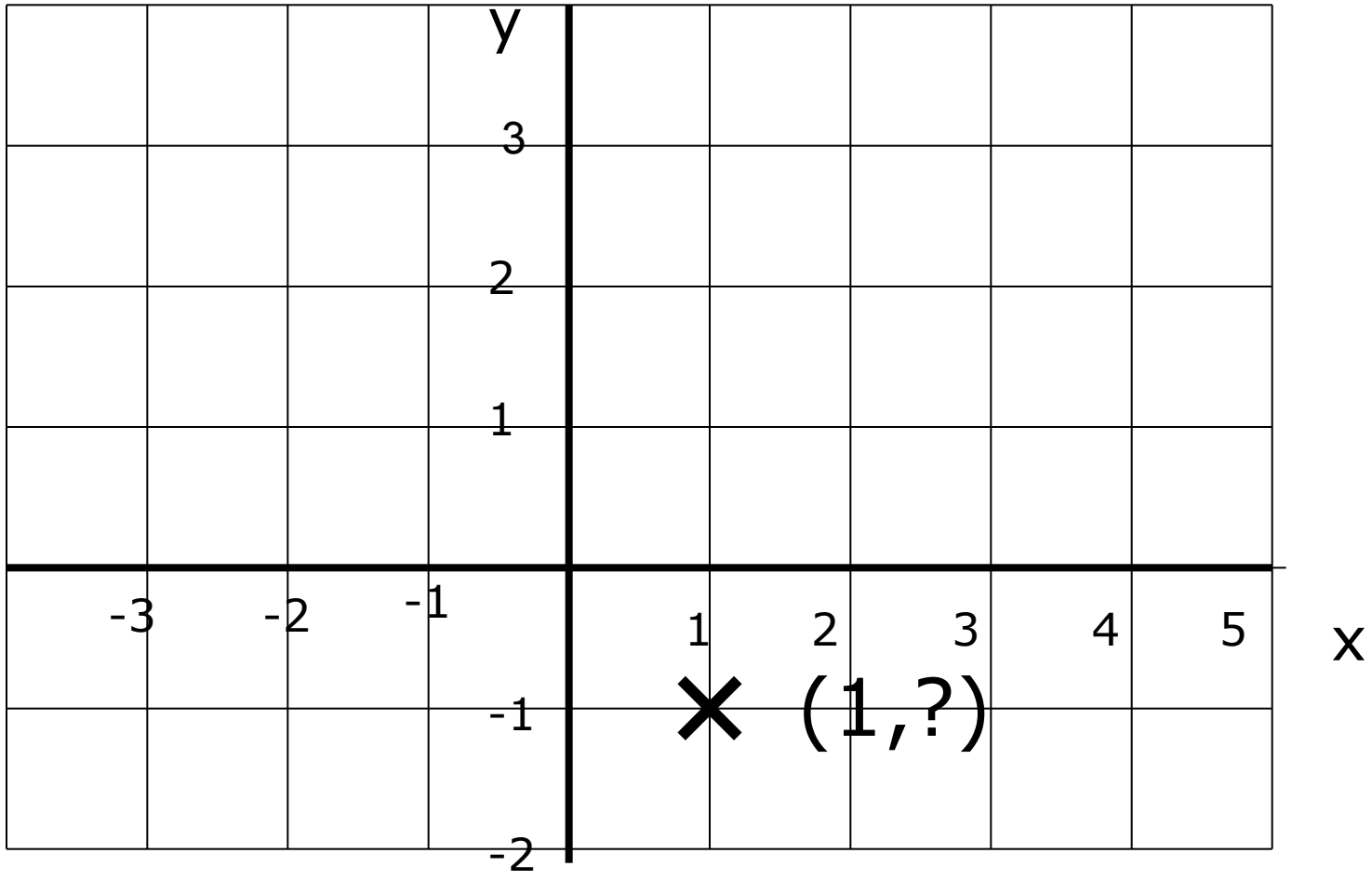
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

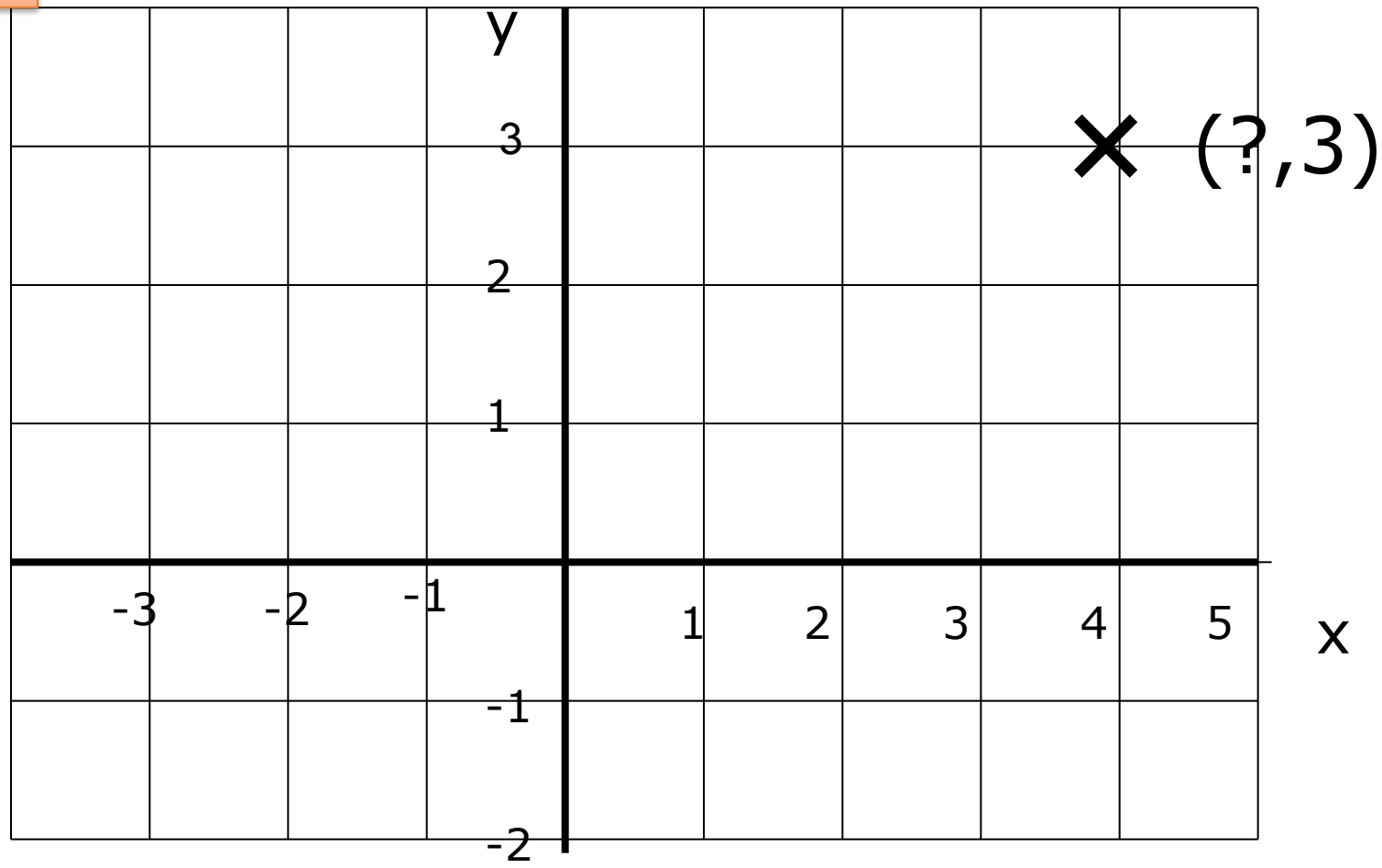
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

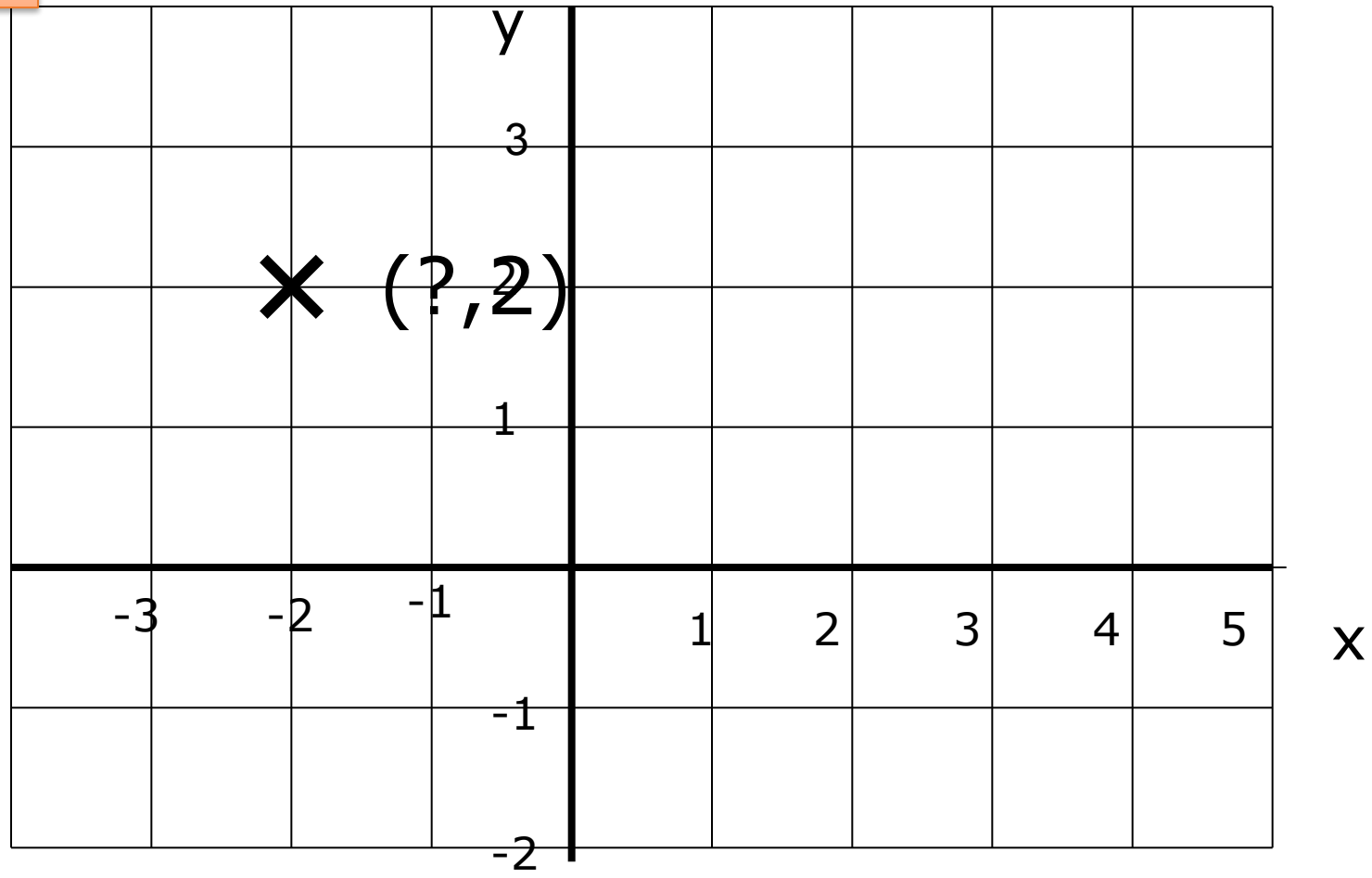
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

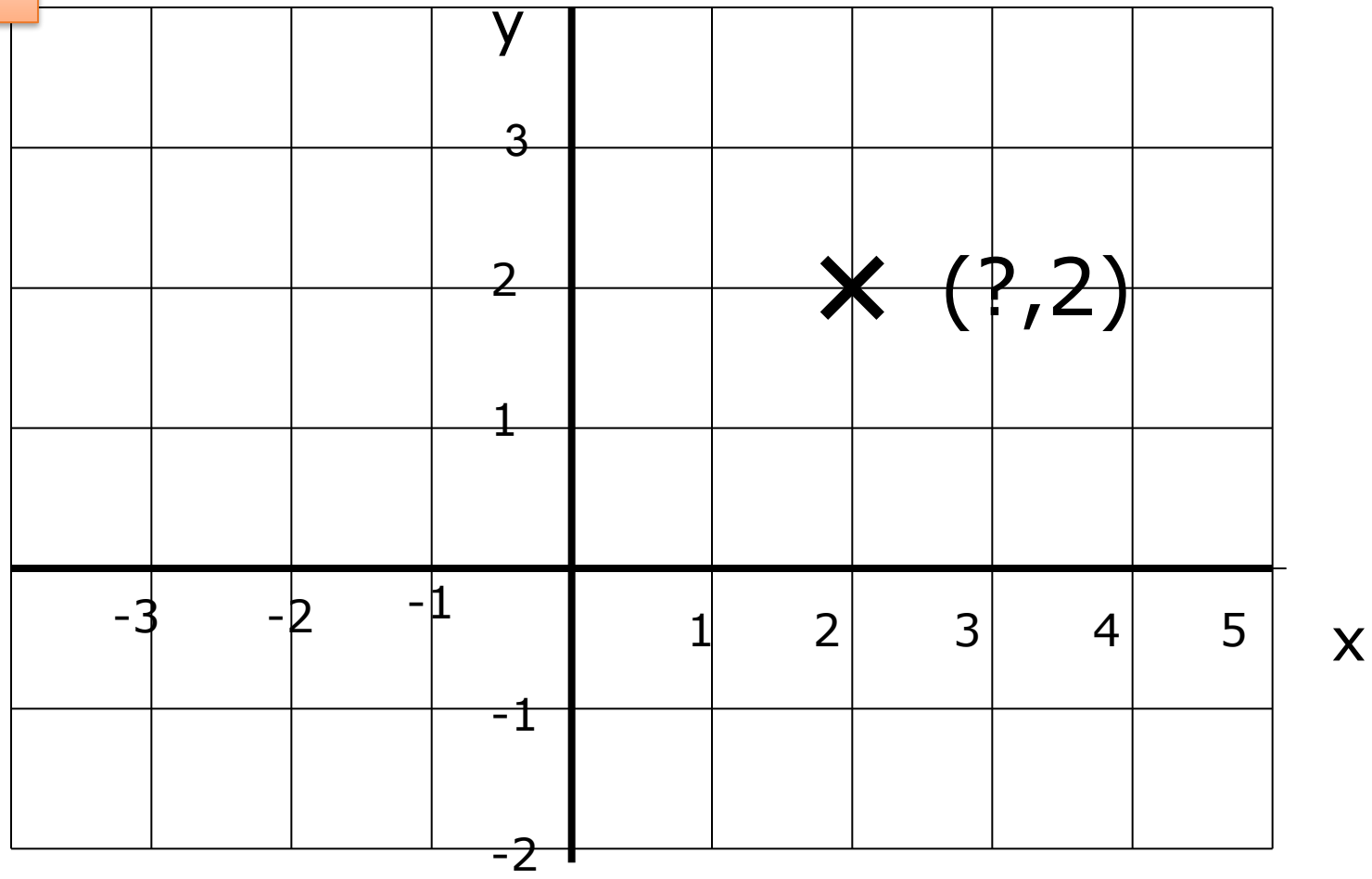
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

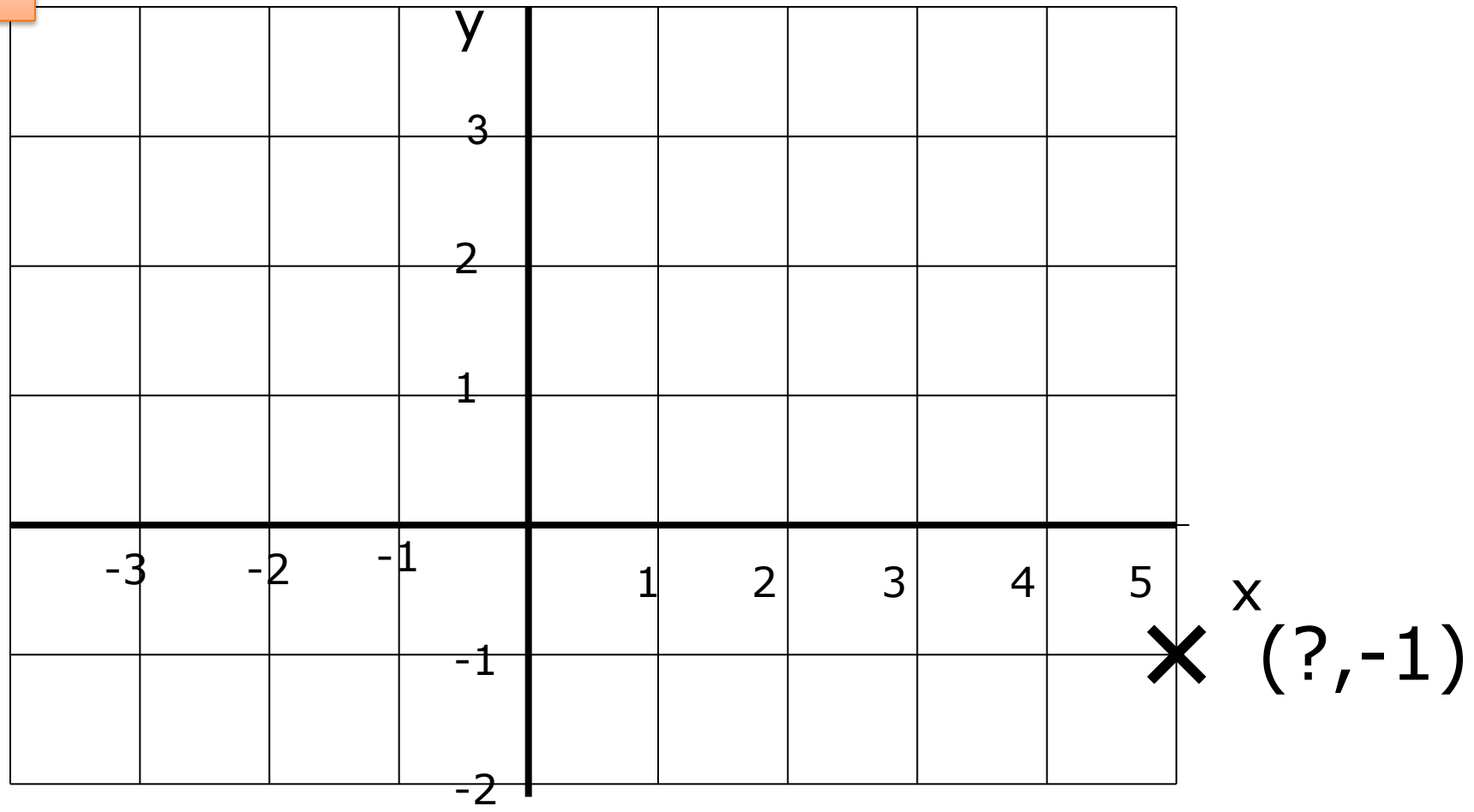
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

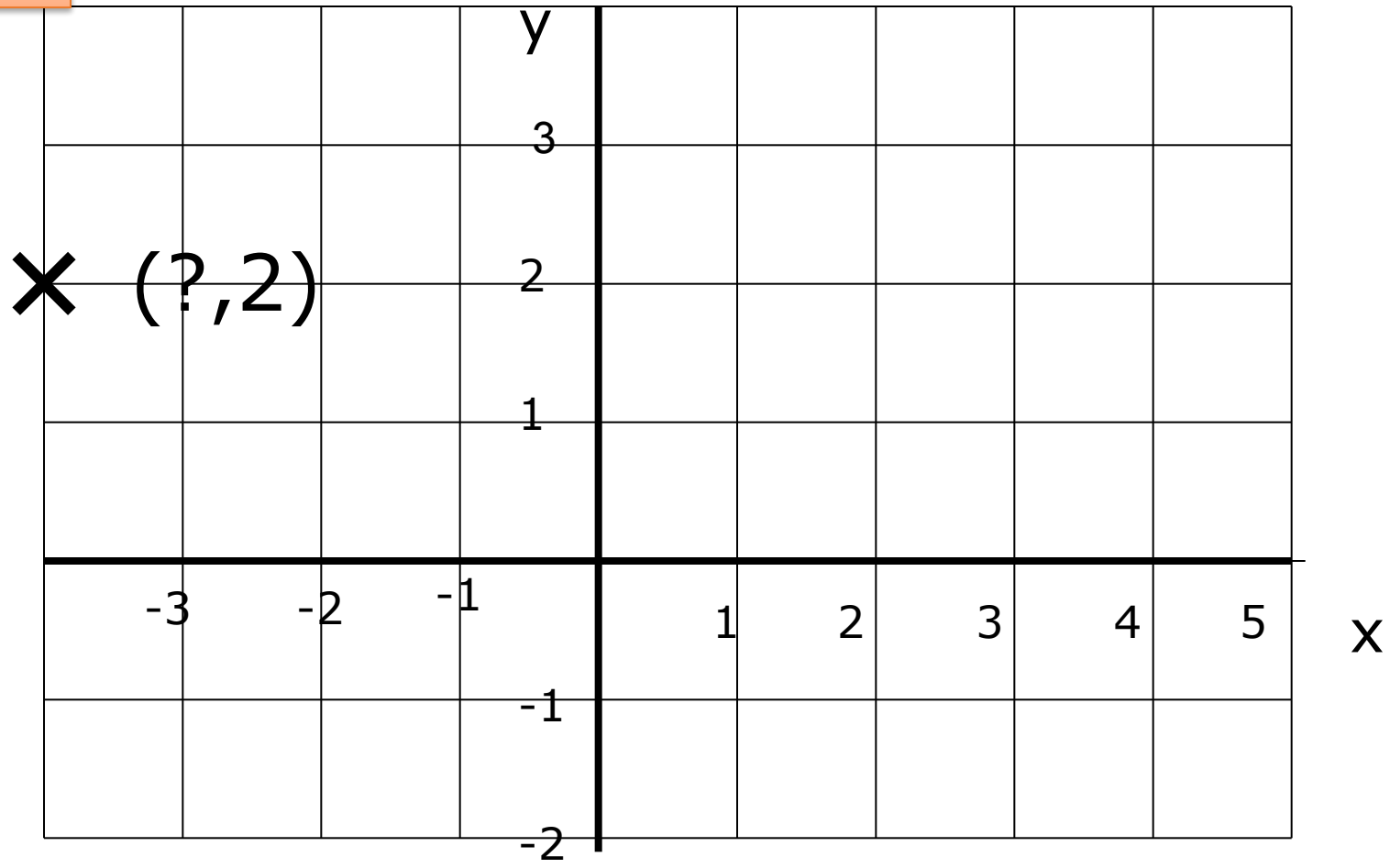
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

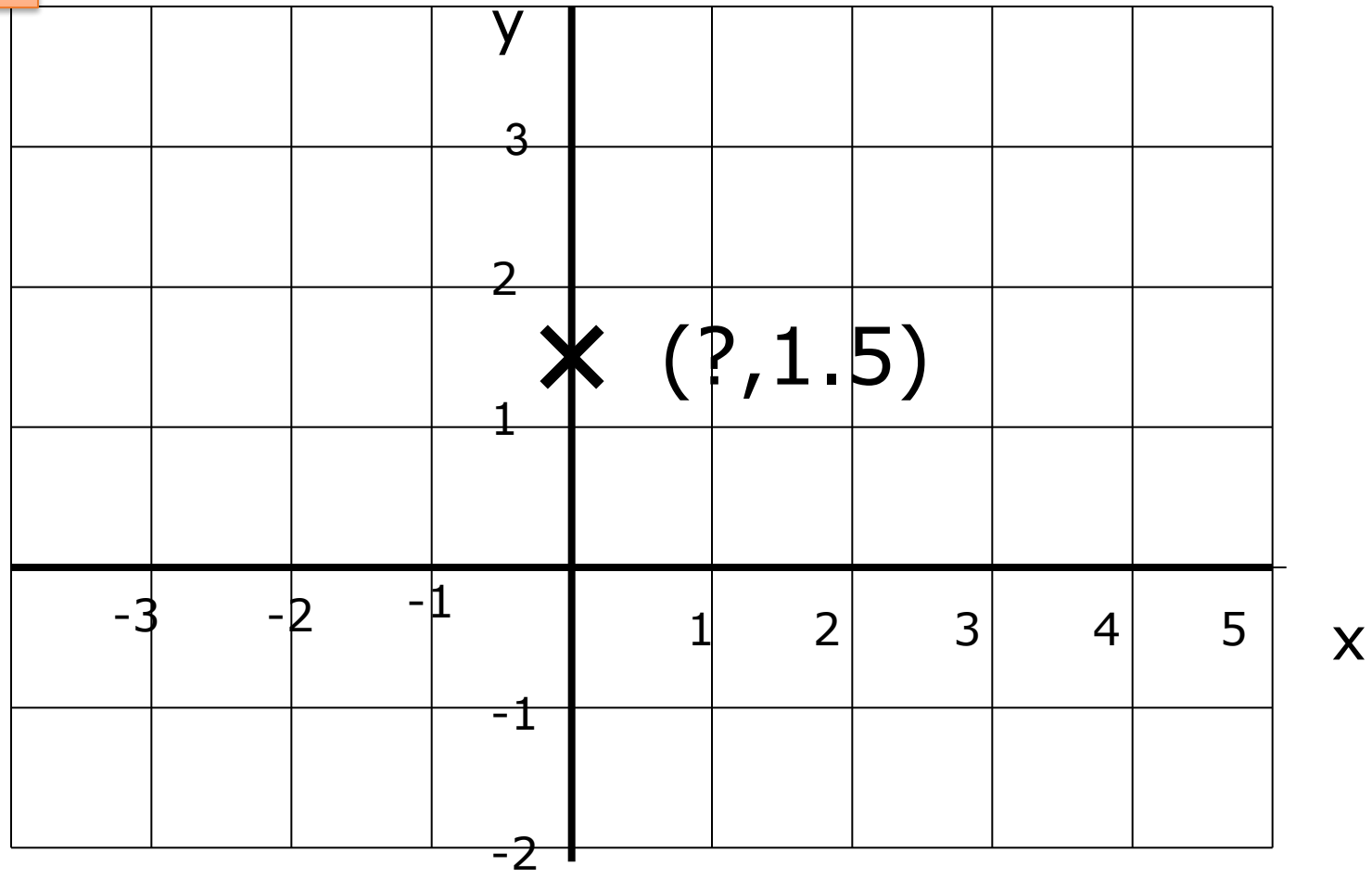
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

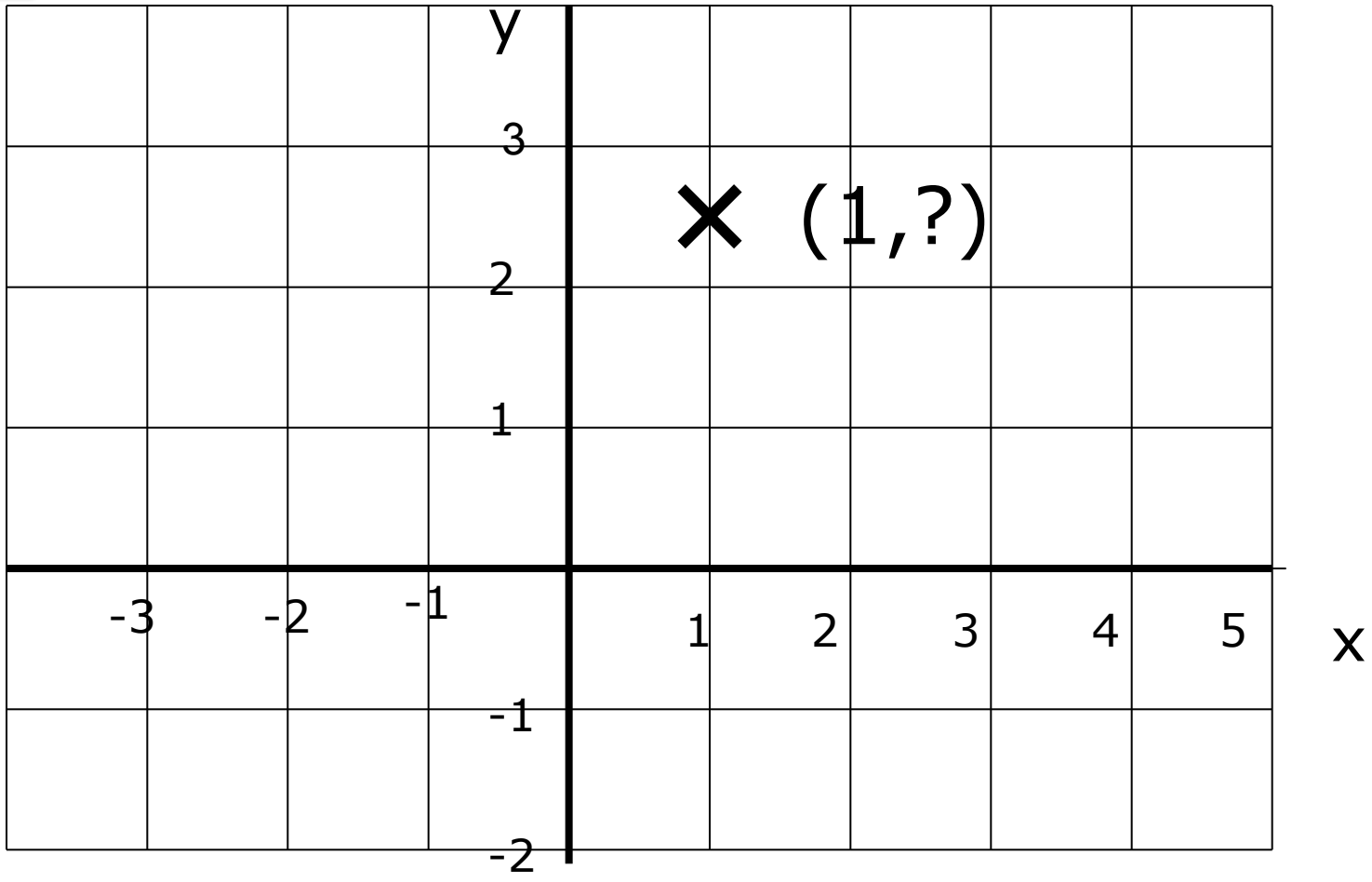
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

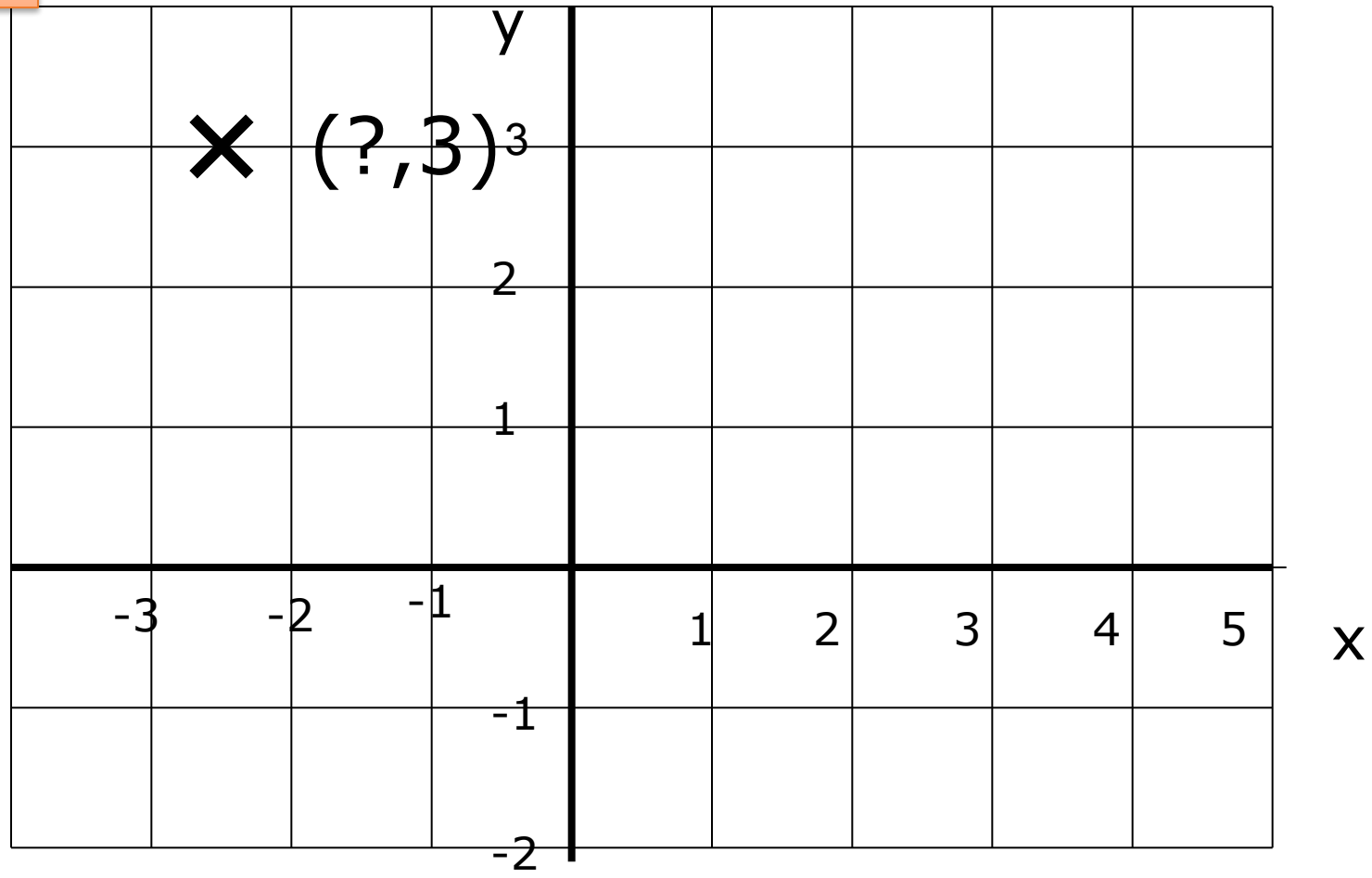
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

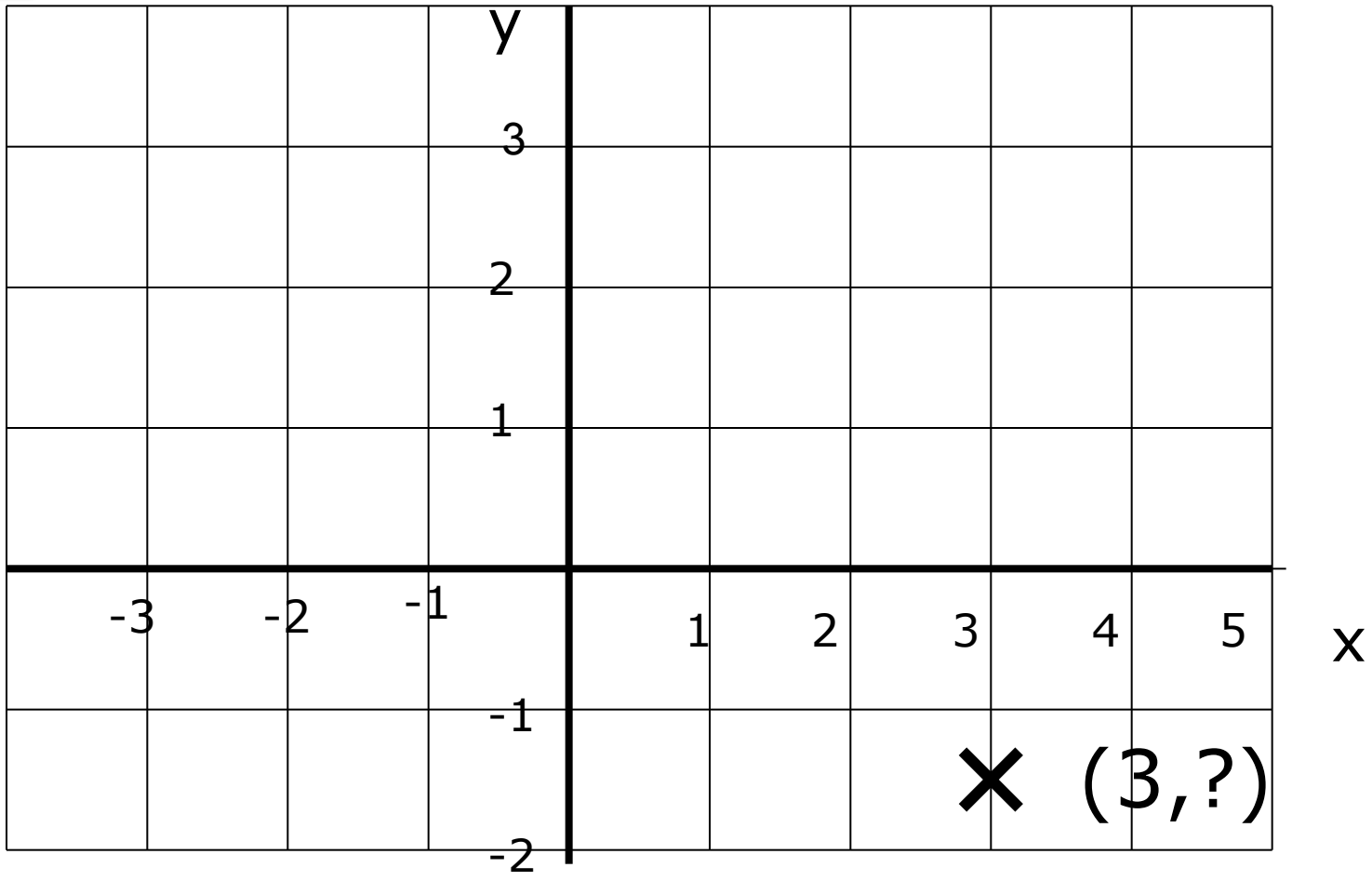
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

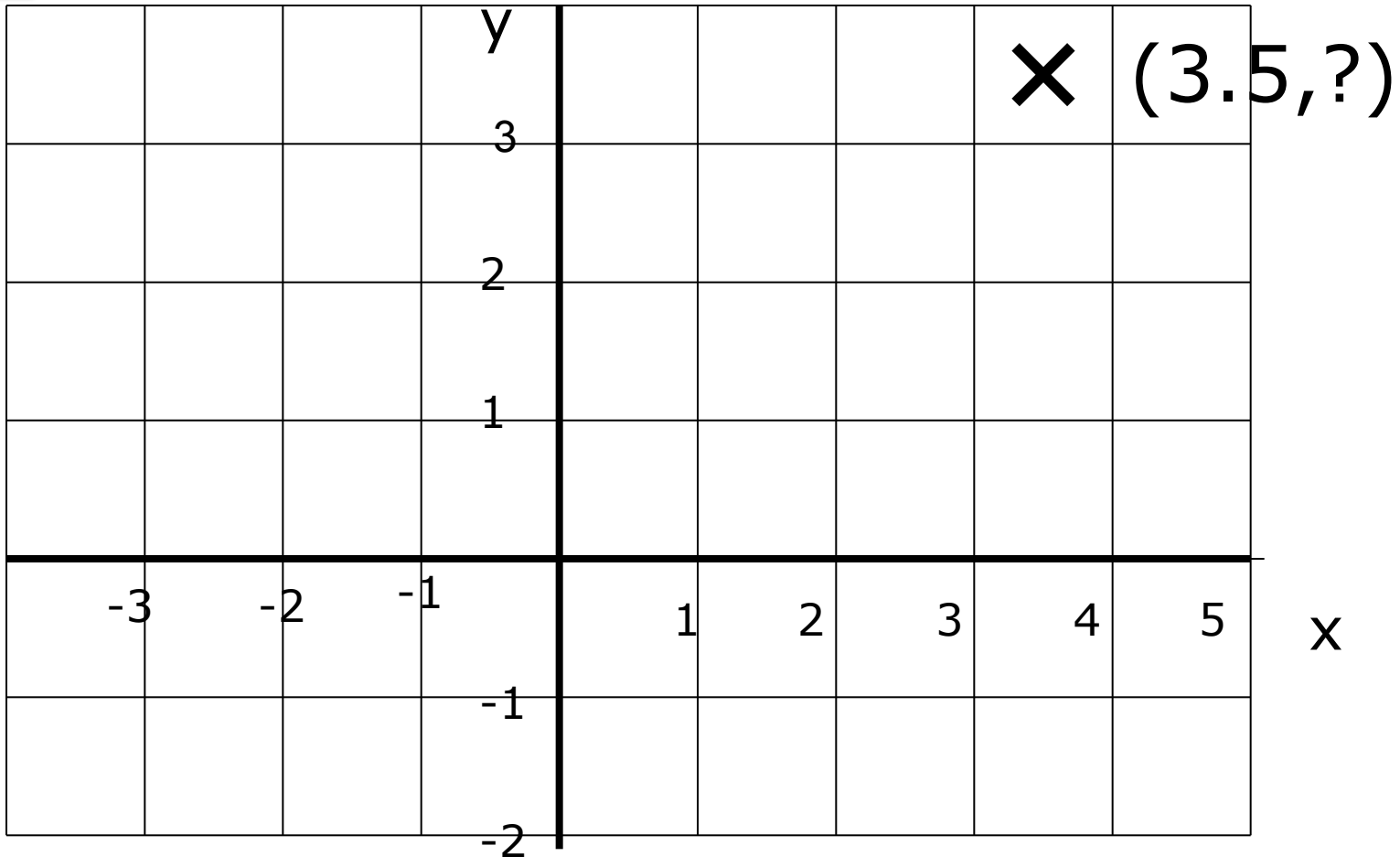
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

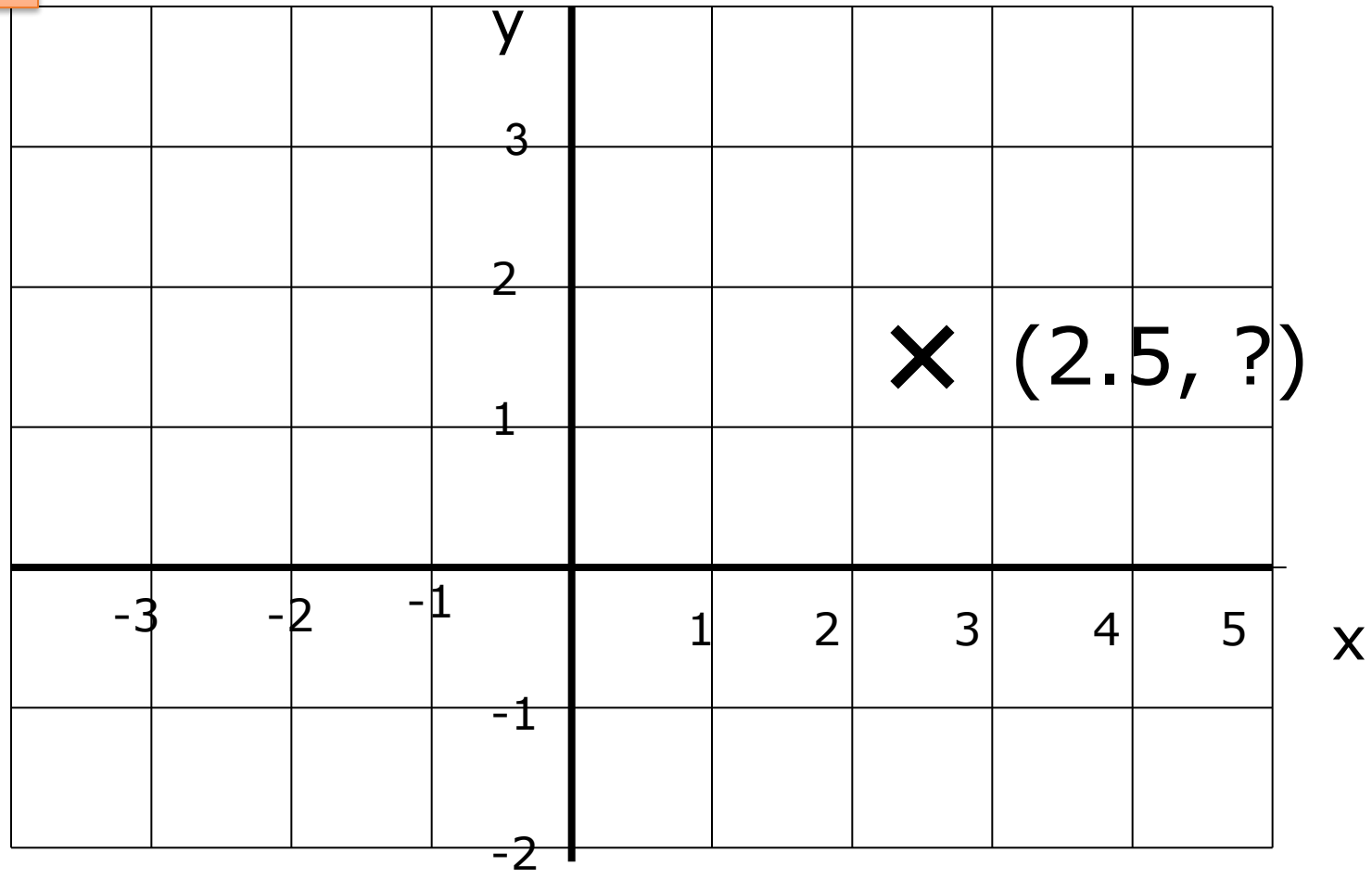
PLENARY:



COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

PLENARY:

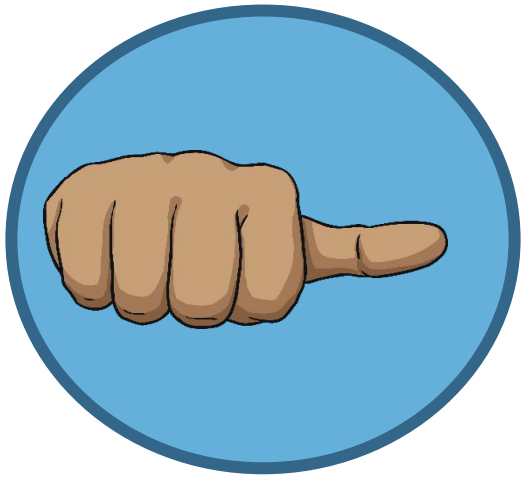


COORDINATE PLANE PLOTTING

LO: To accurately plot coordinates on a pair of axes.

Self Check

Secure



Met

Working Towards