OGUN DIGICLASS

CLASS: SECONDARY SCHOOL

SUBJECT: MATHEMATICS

TOPIC: REVISION

OBJECTIVES

State the place-values of digits in whole numbers

Adding and subtracting numbers using a number line.

Multiplying and dividing negative numbers .

Define the position of points on a cartesian plane in terms of coordinates in relation to the origin, the x-axis and the y-axis.

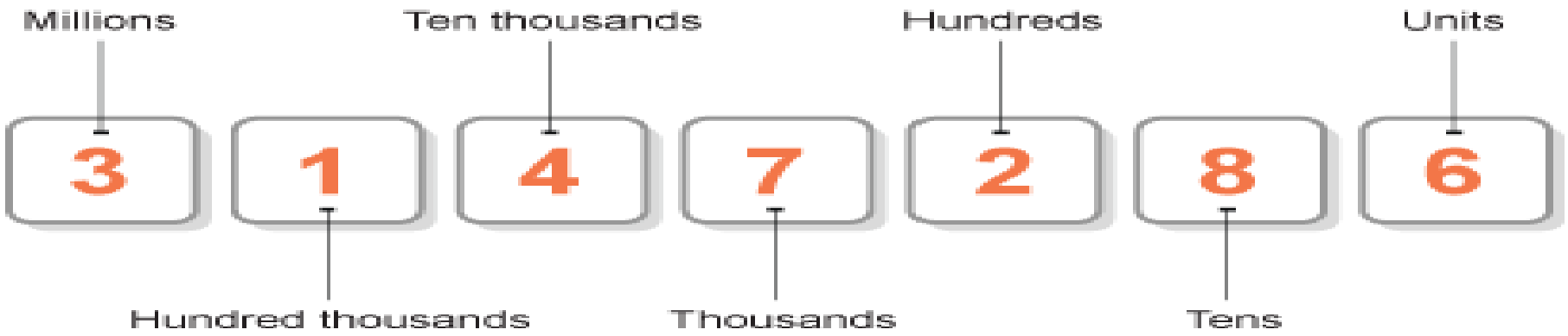
WHOLE NUMBERS

- When describing whole numbers, remember the place values of the original digits.
- However, some digits are 'joined' in their description. For example - when describing the number 35, we do not say 'three tens and five units', but instead describe it by the more common name of 'thirty five'.
- In the same way the thousands, ten-thousands and hundred-thousands columns are usually described together. Here are some examples.
- 2 000 is described as 'two thousand'
  62 000 is described as 'sixty two thousand', and
  162 000 is described as 'one hundred and sixty-two thousand'

Example

- The number 3 147 286 can be written in words as
  three million, one hundred and forty seven thousand, two hundred and eighty six.

PLACE-VALUE



- In the number 3 147 286 the figure 2 has a value of 200 (two hundred), and the figure 3 has a value of 3 000 000 (three million).

LET US TRY THIS NOW

1. Which is the smallest number?

a. 2136
b. 2216
c. 2091

2. Which is the largest number?

a. 2136
b. 2216
c. 2091

3. Mary has four number cards: (7), (2), (1), (9). She is asked to arrange them in order to make different, four-digit numbers. Which is the smallest number Mary can make?

a. 1279
b. 2719
c. 9721

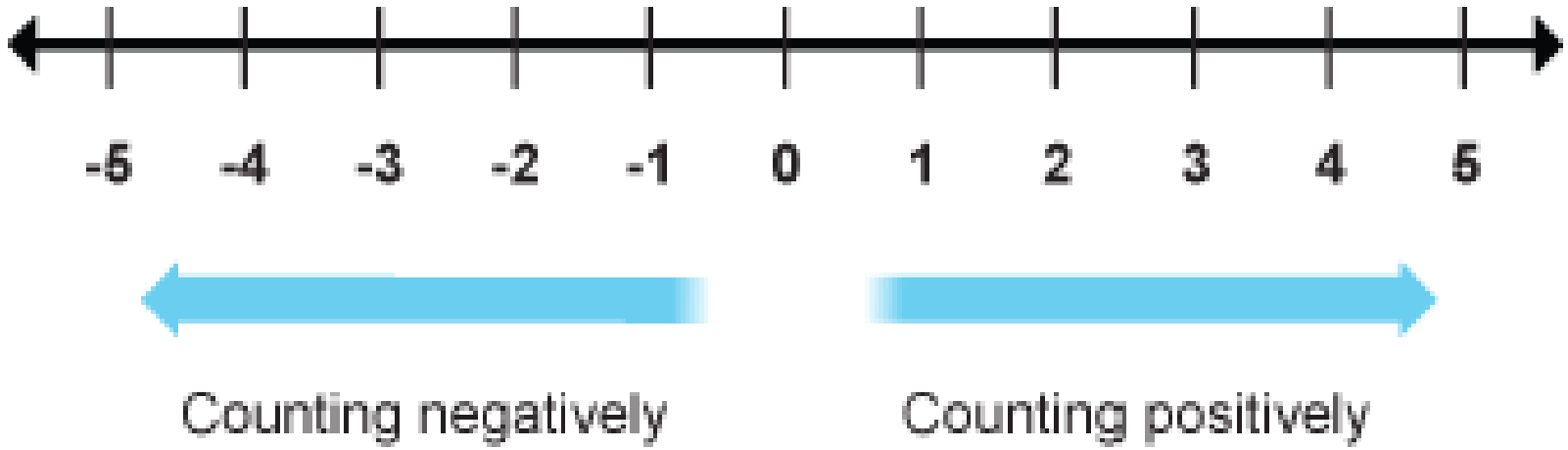
4. In the number 7 213 456, the figure 3 has the value of 3000. What is the value of the 2?

a. 2 000 000
b. 2000
c. 200 000

5. Write the following number - three million, fifty-six thousand, one hundred and two - in figures:

a. 3,056,102
b. 356,102
c. 3,056,210

ORDERING NUMBERS



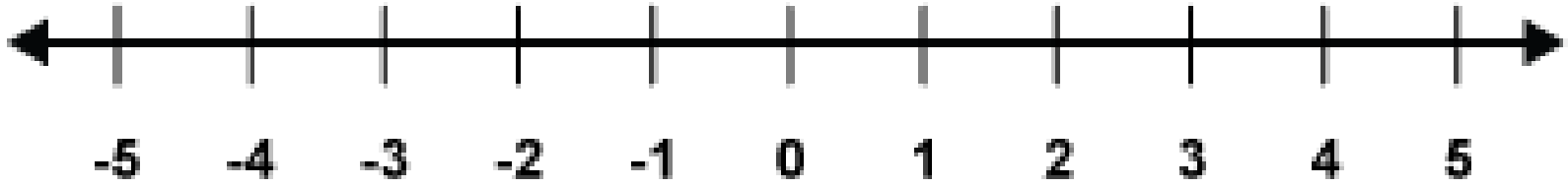
ORDERING NEGATIVE NUMBERS

- Any number above zero is a **positive** number. Positive numbers are written with no sign or a '+' sign in front of them and they are counted from zero to the right.
- Any number below zero is a **negative** number. Negative numbers are always written with a '-' sign in front of them and they are counted from zero to the left.
- Always look at the sign in front of a number to see if it is positive or negative.
- Positive numbers get higher the further we move right, so 5 is more than 2.
- Negative numbers get lower the further we move left, so -5 is less than -2.

Adding and subtracting negative numbers

- To add and subtract numbers always begin counting from zero.
- When dealing with positive numbers count to the right.
- When dealing with negative numbers count to the left.
- **Using a number line**
- A number line
- **Example**
- Calculate 4 - 5 - 3
- Imagine moving up and down a number line to get to the answer.
- Starting from zero, count up to 4. Then subtract 5. Then subtract 3. The answer is -4.

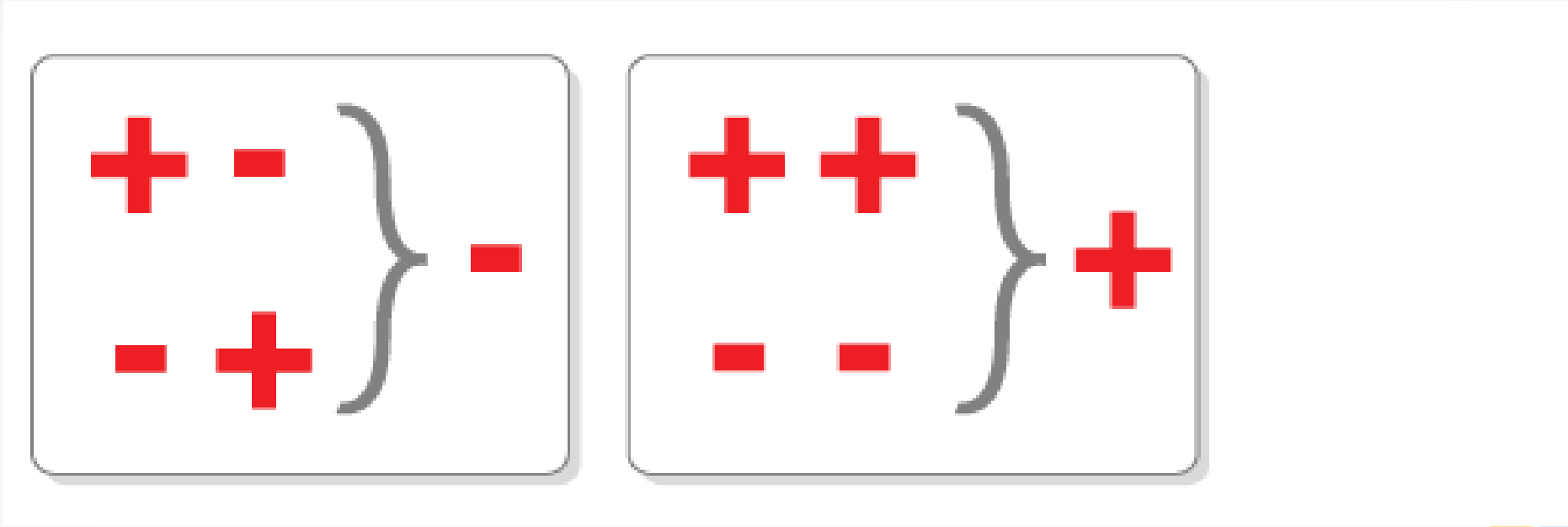
CALCULATE 4 - 5 -3



The rule for adding or subtracting numbers

- **Two signs**
- When adding or subtracting negative numbers, remember that when two signs appear next to each other and are different, then you subtract. When two signs are next to each other and they are the same, you add:

The rule for adding or subtracting numbers



LET US TRY THIS NOW

- 1. 5+(-3) =
- 2. 8 -(5)=
- 3. 9 + (+6) =
- 4. 7-(-3) =

Multiplying and dividing negative numbers.

The rule for multiplying and dividing is very similar to the rule for adding and subtracting.

- When the signs are different the answer is negative.
- When the signs are the same the answer is positive.

EXAMPLES

- 1. -3 X (+4) =
- 2. +4 X (-2)=
- 3. +9 ÷ (+3)=
- 4. -15 ÷ (-5)=

LET US TRY THIS NOW

1. What is the answer to this calculation: -11 + 3 - 8 =

a. 4
b. -11
c. -16

2. Calculate the following: 7 - -2 =

a. 9
b. -1
c. 7

3. Calculate the following: -6 x 8 =

a. -48
b. 48
c. 32

4. Calculate the following: 24 divided by -6 =

a. 5
b. -4
c. 12

KEY WORDS ON COORDINATES

COORDINATE: Two numbers giving the position of a point on the cartesian plane

CARTSIAN PLANE: a graph showing a plane surface with axes

AXES: plural of axis

X-AXIS: a line from left to right on the cartesian plane

Y-AXIS: a line from bottom to top on the cartesian plane

ORIGIN: the ponit where the x-axis and y-axis cross

X-COORDINATE: the 1st number in a pair of coordinate

Y-COORDINATE: the 2nd number in a pair of coordinate

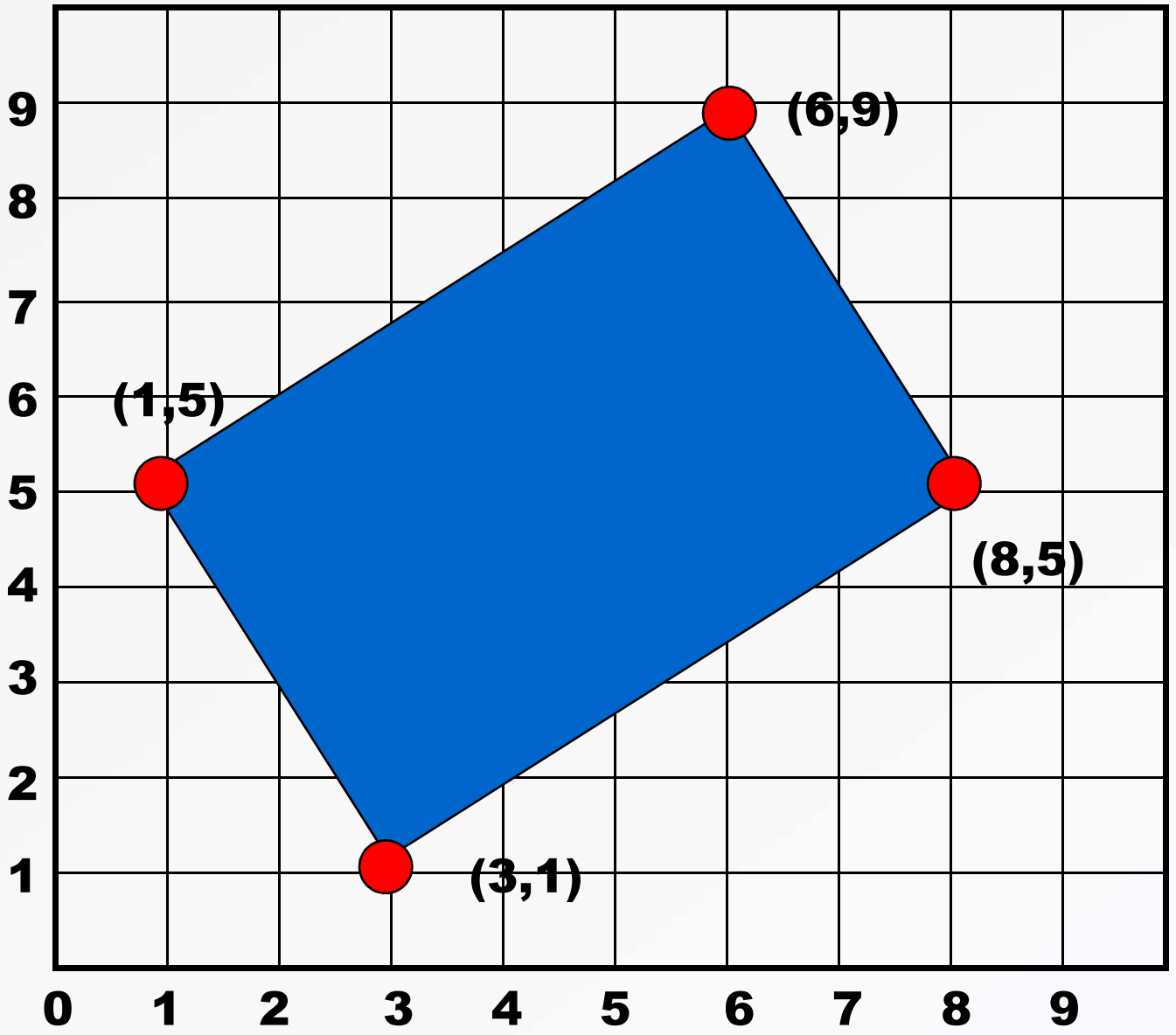
3

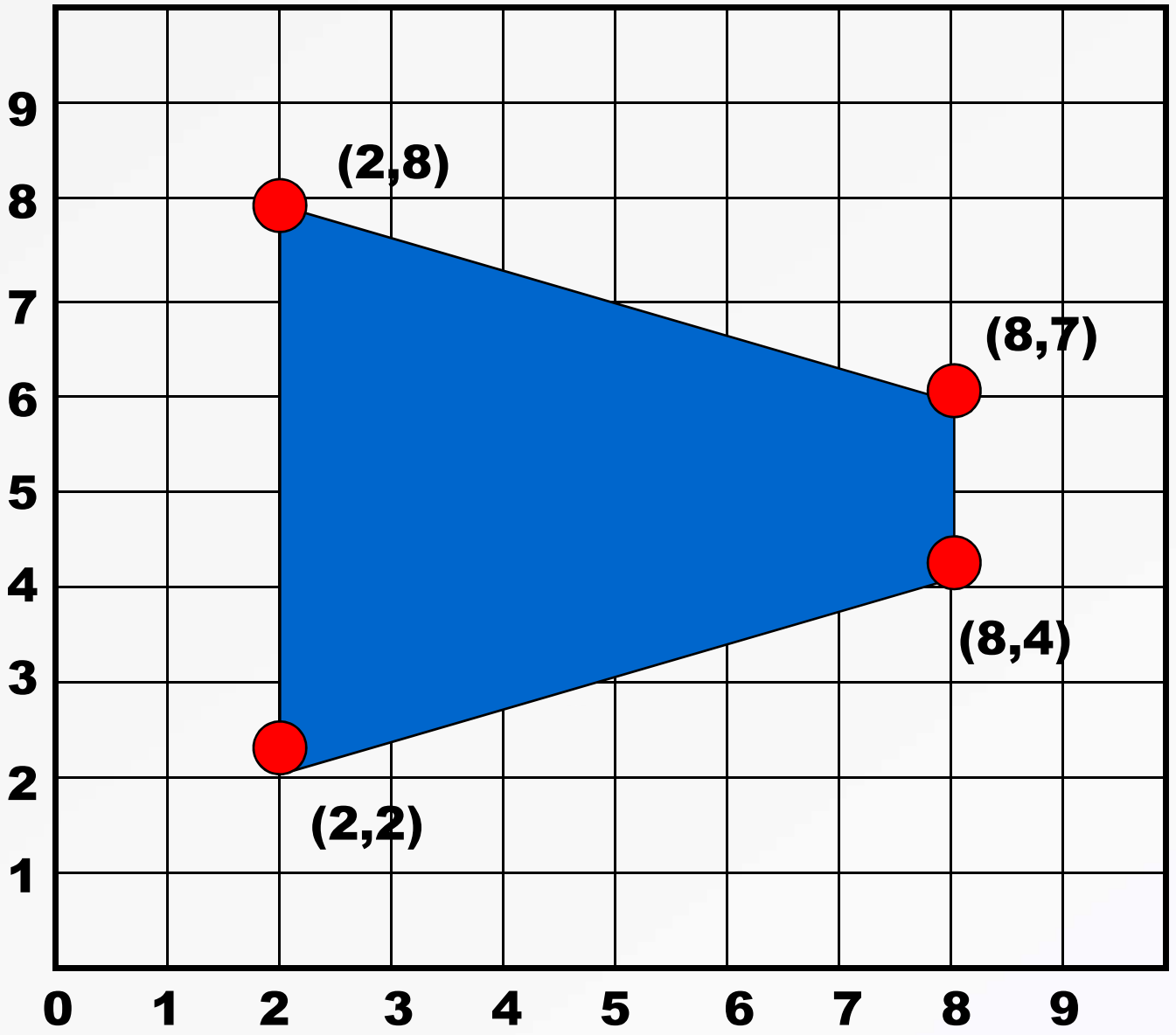
What's the co-ordinate?

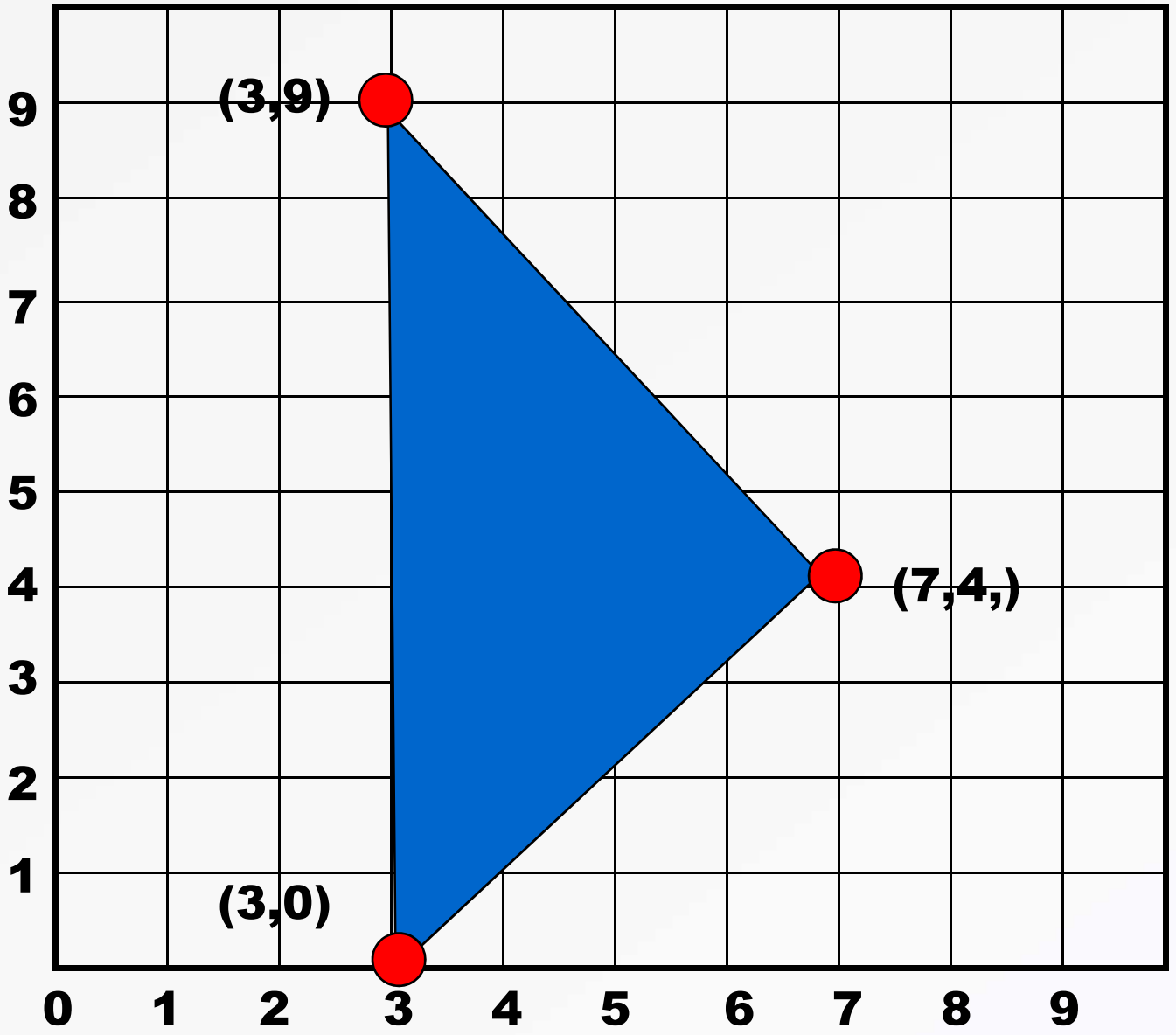
7

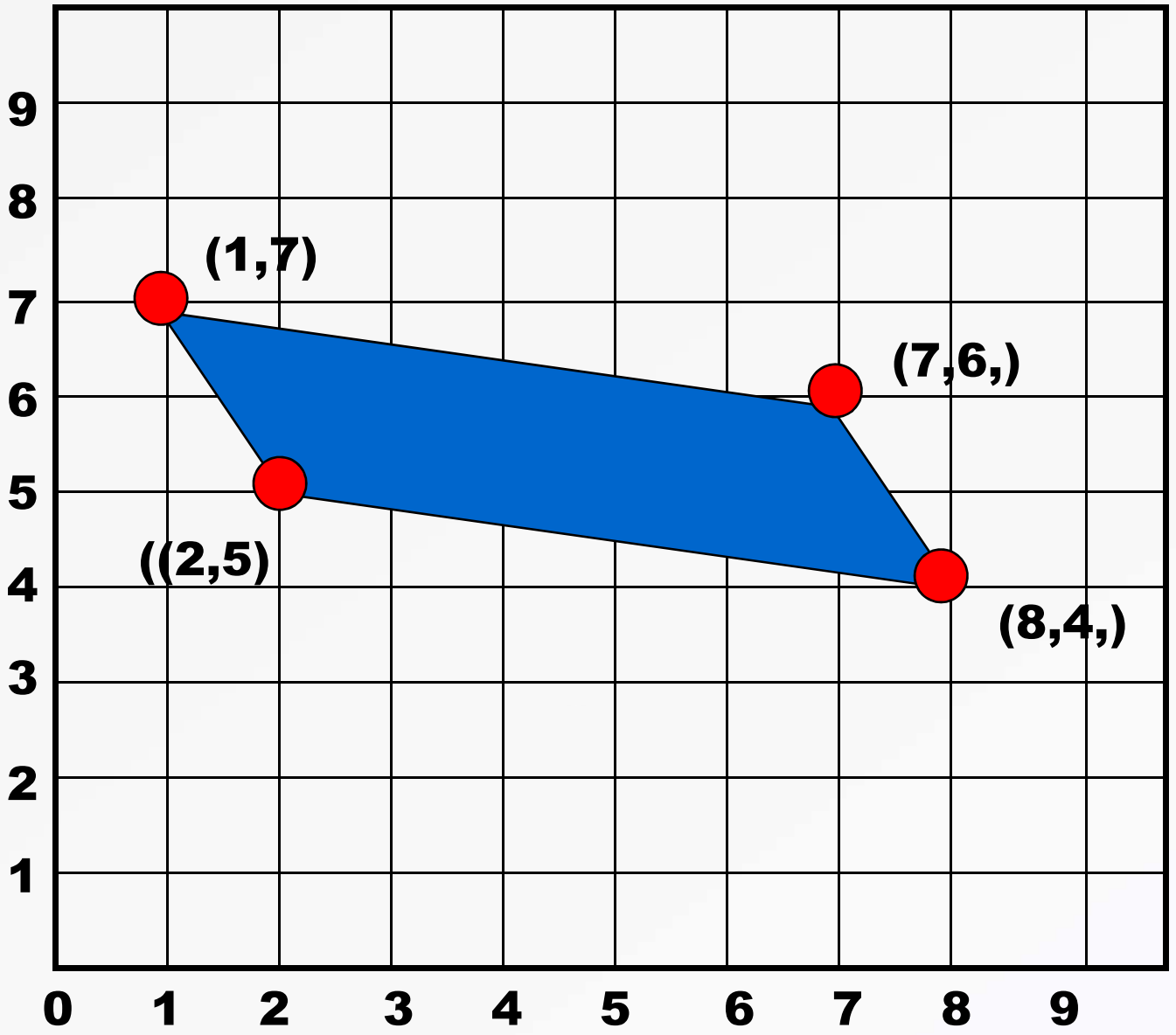
What's the shape?

9


(6,9)
(1,5)
(8,5)
(3,1)
0
1
2
3
4
5
6
7
8
9

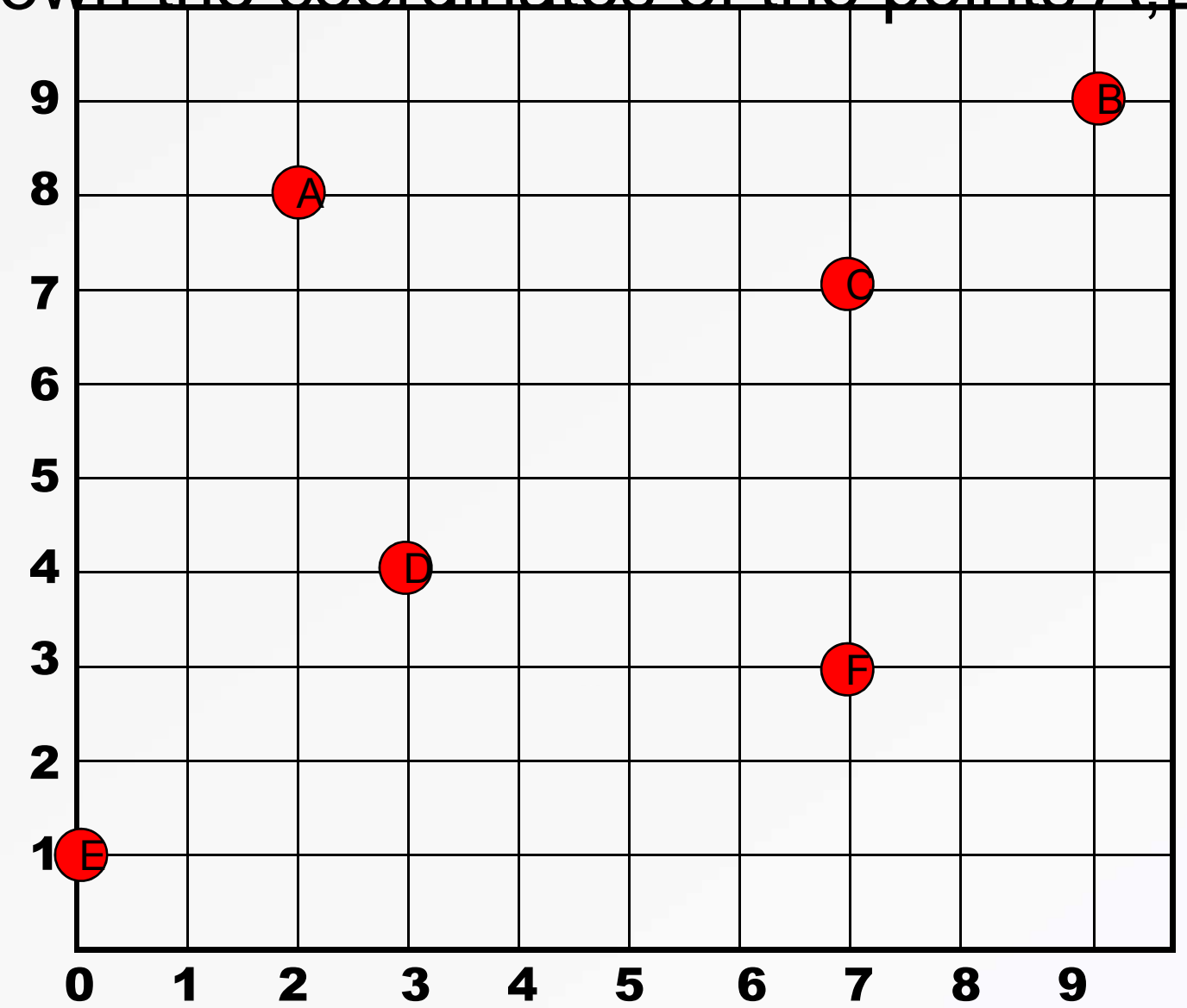

(2,8)
(8,7)
(8,4)
(2,2)
0 1 2 3 4 5 6 7 8 9
1 2 3 4 5 6 7 8 9


(3,9)
(7,4,)
(3,0)
9
8
7
6
5
4
3
2
1
0
1
2
3
4
5
6
7
8
9


9
8
7
6
5
4
3
2
1
0
1
2
3
4
5
6
7
8
9
(1,7)
(7,6,)
((2,5)
(8,4,)

LET US TRY THIS NOW

Write down the coordinates of the points A,B,C,D,E,F



- For more go onto www.ogundigiclass.ng maths video and it will help you a lot when revising. It has all the topics in it so you wont miss anything out when revising for an exam.