L.O. To describe positions on the full coordinate grid (all

four quadrants), predicting missing coordinates using the

properties of shapes.

**(**

**mastery**

**)**

(

,

)

(6

,

3)

A

B

C

*x*

*y*

Here are 4

**identical**

**rectangles**

on coordinate axes.

Write the coordinates of points A, B and C.

(

,

)

(

,

)

A =

B =

C =

A

(

-

20,10)

(40,20)

B

M

*y*

*x*

**M**

is the

**midpoint**

of the line

**AB**

.

Write the

**coordinates**

of the point

**M**

.

(

,

)

M =

(

-

5)

5

,

(

-

5,15)

(

-

,

5

-

5)

C

B

A

(

,

)

Here are 2

**identical**

**squares**

on coordinate axes.

Write the coordinates of points A, B and C.

(

,

)

(

,

)

A =

B =

C =

L.O. To describe positions on the full coordinate grid (all

four quadrants), predicting missing coordinates using the

properties of shapes.

**mastery with greater depth**

**(**

**)**

(

,

)

(9,4.5)

A

B

C

*x*

*y*

Here are 4

**identical**

**rectangles**

on coordinate axes.

Write the coordinates of points A, B and C.

A =

B =

C =

A

(

-

5)

,

10

(20,10)

B

M

*y*

*x*

**M**

is the

**midpoint**

of the line

**AB**

.

Write the

**coordinates**

of the point

**M**

.

M =

(

-

2.5,2.5)

(

-

7.5,7.5)

(

-

2.5

,

-

2.5)

C

B

A

Here are 2

**identical**

**squares**

on coordinate axes.

Write the coordinates of points A, B and C.

A =

B =

C =

(

,

)

(

,

)

(

,

)

(

,

)

(

,

)

(

,

)

|  |
| --- |
| L.O. To describe positions on the full coordinate grid (all four quadrants), predicting missing coordinates using the properties of shapes. Teacher’s notes  |



|  |
| --- |
|  Answers: Mastery: 1) A = (-6,6) B = (-6,-3) C= (6,-6) 2) M = (10,15) 3) A = (5,-5) B = (5,-15) C = (-5,-15)  Mastery WGD: 1) A = (-4.5,13.5) B = (-9,-4.5) C= (-4.5,-13.5) 2) M = (5,7.5) 3) A = (2.5,-2.5) B = (2.5,-7.5) C = (-2.5,-7.5)  |
| Useful interactive games for teaching coordinates:  [http://mathsframe.co.uk/en/resources/resource/153/](http://mathsframe.co.uk/en/resources/resource/153/coordinates__reasoning_about_position_and_shapes) [coordi-](http://mathsframe.co.uk/en/resources/resource/153/coordinates__reasoning_about_position_and_shapes) [nates\_\_reasoning\_about\_position\_and\_shapes](http://mathsframe.co.uk/en/resources/resource/153/coordinates__reasoning_about_position_and_shapes)  Choose to solve problems either in the first quadrant or in all 4 quadrants.   <http://mathsframe.co.uk/en/resources/resource/79/itp_coordinates> [http://mathsframe.co.uk/en/resources/category/19/ shape\_and\_space](http://mathsframe.co.uk/en/resources/category/19/shape_and_space)  A variety of games to teach geometry.    |