



Aberdare Community School  
Mathematics Department

WJEC GCSE  
**Higher – Calculator**  
Algebra

# Coordinates

Name: .....

Set: .....

Date: .....

Teacher: .....

(b) Find the coordinates of the mid-point of a line joining  $A(3, -1)$  and  $B(8, 5)$ .

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[3]

3. A pattern using dots is to be created on a background for a large window display. The instructions say that the background should be a grid 9 squares across by 16 squares up and the coordinate system for plotting should be used. Dots are then placed at points where the  $x$ -coordinate is a factor of 9 and the  $y$ -coordinate is a factor of 16, for example (3, 4). Use the grid below to plot all the dots for the window display.

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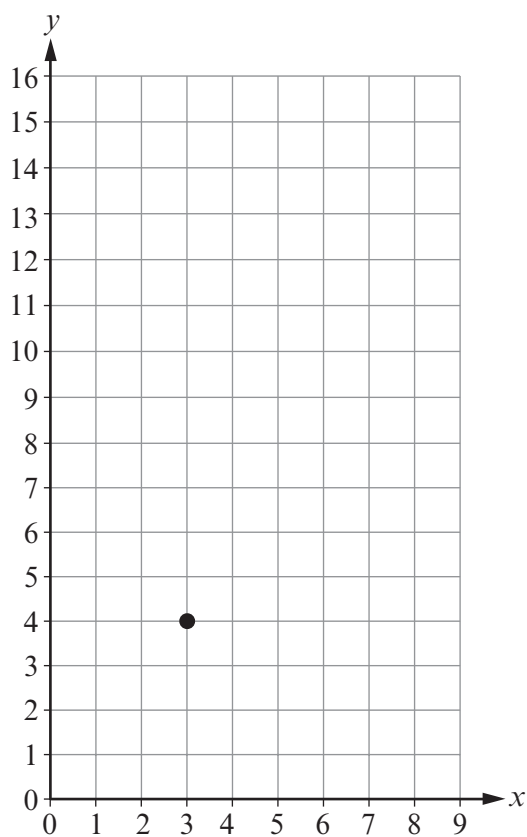
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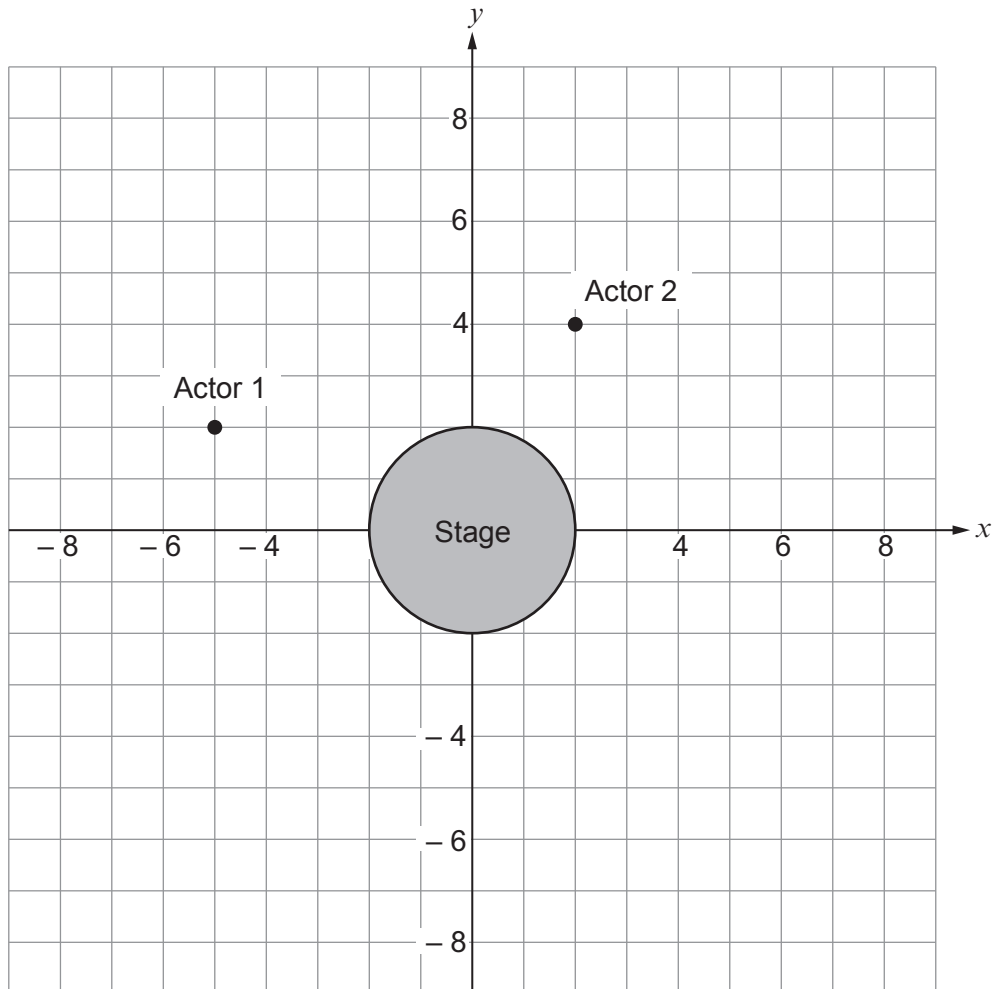
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[3]

4. The circular stage in *Theatr Seren* is in the centre of the theatre. It is decided to seat four actors amongst the audience to hold the ends of four ribbons. A plan of the theatre is represented by the coordinate grid shown below. The actors are to be seated so that ribbons held by the four of them will form a square.



Mark where the other two actors should be seated, and write down the coordinates of their positions. [2]

( ..... , ..... )

( ..... , ..... )