Guide to: Reflections

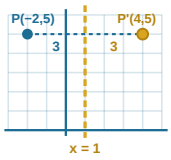
maths Links

Explanation:

To **describe a reflection** fully (2 marks), you must state: (1) the word **reflection**, and (2) the **equation of the mirror line**. Know the key mirror lines: the ***x*-axis** is ***y* = 0**, the ***y*-axis** is ***x* = 0**, vertical lines are ***x* = *k***, horizontal lines are ***y* = *k***, and diagonal lines are ***y* = *x*** or ***y* = −*x***.

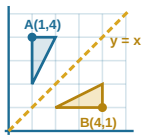
To reflect a shape, draw the mirror line first, then count the perpendicular distance from each vertex to the mirror line and count the exact same distance on the opposite side.

Example 1: Point *P*(**−2, 5**) is reflected in the vertical mirror line ***x* = 1**. Find the coordinates of *P′*.



−2 to 1 is **3 right**.
3 more right: 1 + 3 = **4**.
Answer: (4, 5)

Example 2: Shape *A* has vertex (1, 4) and its reflected image *B* has corresponding vertex (4, 1). Describe the transformation.



Coordinates swap: (1, 4) → (4, 1).
Reflection in the line *y* = *x*

Worksheets and other links					
Video Lesson on this topic	Video		**Dr Austin Maths**	Qs	Ans
Ken Stafford (Past Paper Qs)	Qs	Ans	**Maths4Everyone**	Qs	Ans
Maths Genie	Qs	Ans	**E Classroom**	Qs	Ans
Corbettmaths (Practice)	Qs	Ans	**PMT (Edexcel)**	Qs	Ans
Corbettmaths (Textbook)	Qs	Ans	**PMT (AQA)**	Qs	Ans
1st Class Maths	Qs	Ans	**PMT (IGCSE)**	Qs	Ans

Questions by topic

Past Papers

Maths worksheets

Buy workbook

Quizzes

More resources like this

ken@mathslinks.co.uk