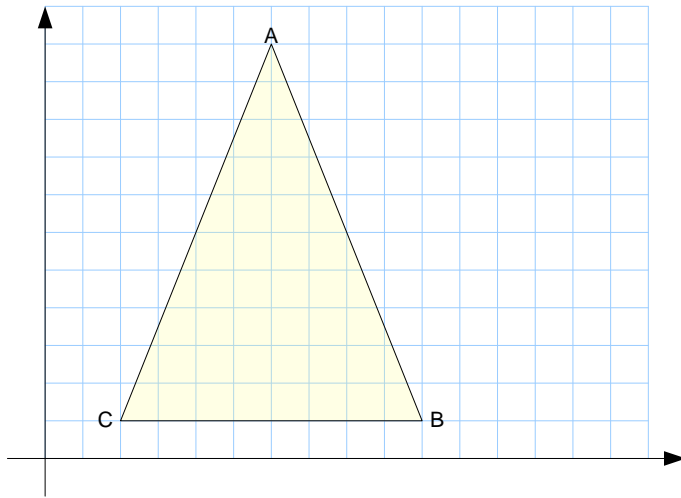
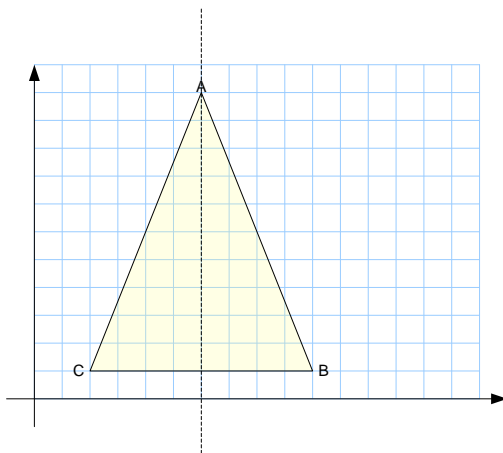


How to answer a question on co-ordinates and isosceles triangles

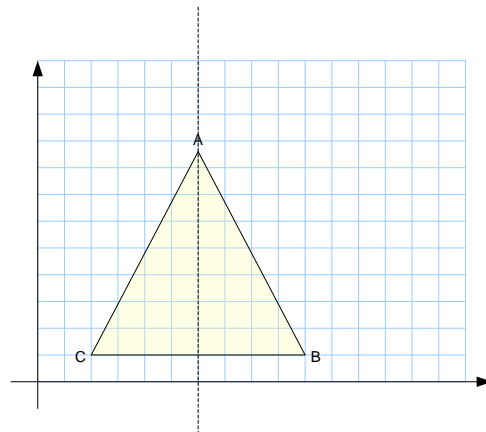


Triangle ABC is an isosceles triangle. You are only allowed to move point A. Give another co-ordinate for A so that ABC is a different isosceles triangle.

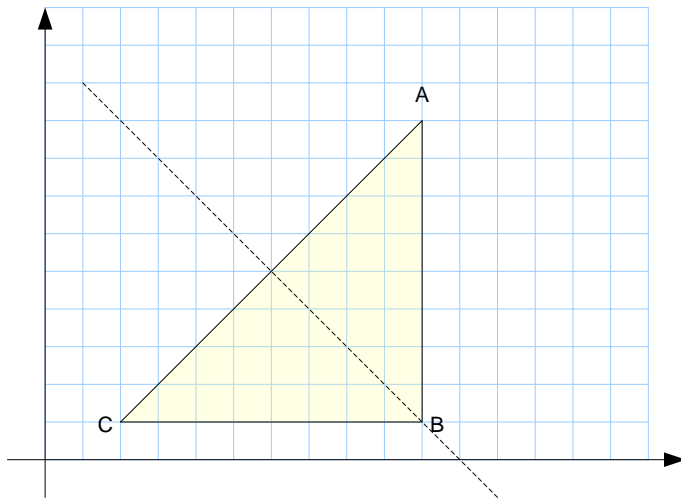


The important thing to do here is to draw on the axis of symmetry (or the mirror line). This shows you all the possible positions of A in order to make it a different isosceles triangle.

Once you have the mirror line marked on your diagram, you can give a different set of coordinates along that mirror line. Be careful not to make your isosceles triangle into an equilateral one where all the sides are the same length.



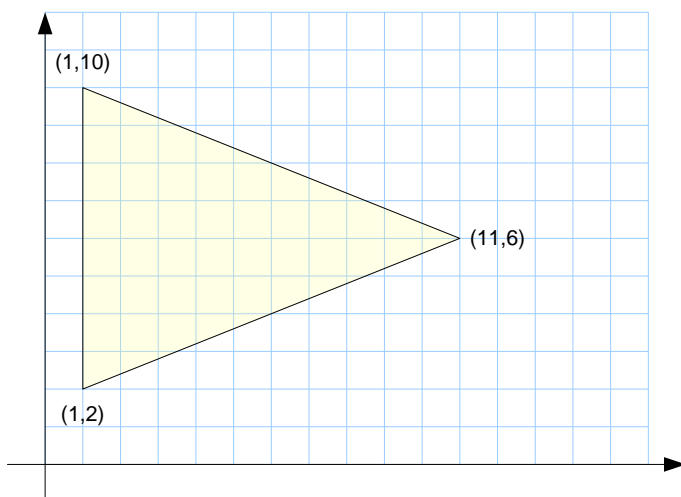
The second part of the question asks you to move only point A but to make it so that there is a right angle and the triangle is still an isosceles one.



In this case, you need to move the A either directly above the B or the C to get the right angle.

Unlike the previous answer, this one has only one correct solution and that needs to be where the lines from B to C and from B to A are the same length.

So this question provides two easy marks as long as you remember to put on the axis of symmetry. Have a go at this question to test your new found knowledge.



The diagram shows an isosceles triangle. You are only allowed to move the point which is currently at (11,6). The other two points must remain fixed.

Give some different co-ordinates which mean that the triangle becomes a different isosceles triangle.

Move the point (11,6) to a new position such that the triangle remains an isosceles triangle but has a right angle in it.