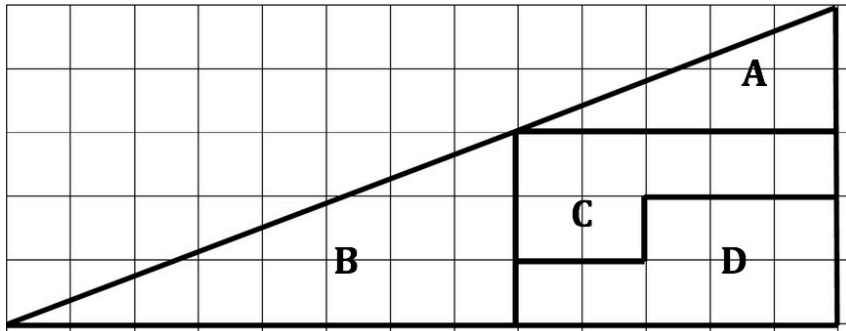
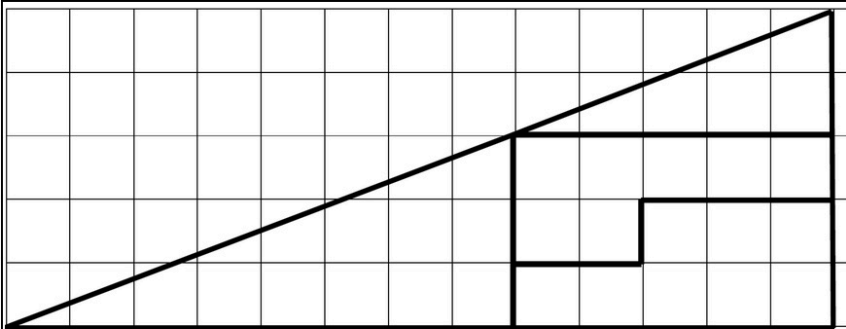


MUGGLES MAGIC



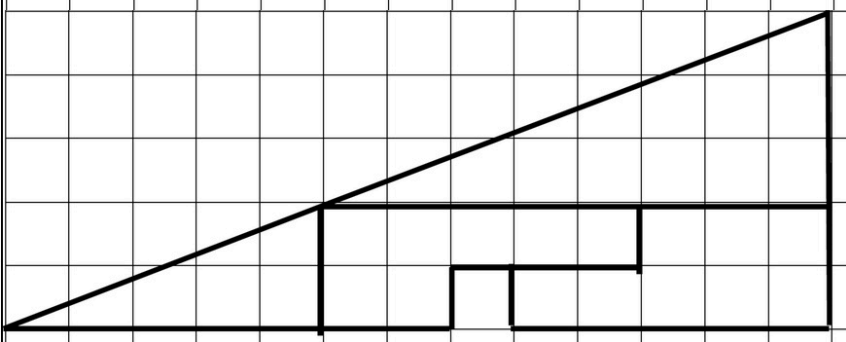
Cut out the 4 pieces



The area of each of the grid squares is 1 square unit.

What are the areas of the 4 pieces you have cut out?

Fit your 4 pieces into both these shapes. They should fit exactly.



What are the areas of the shapes? Are they the same?

Can you explain why the bottom shape has one square unit cut out?

What has happened to the missing square?

HELP

There are two smaller triangles. Are the angles in these triangles the same? Are they similar? How do you know.

NEXT

If you have read the Harry Potter books or seen the films you will know that Muggles cannot do magic. This is a mathemagic or mathematical trick, not a magical one. Try it out on your friends and family. Give a full careful explanation of how the trick works.