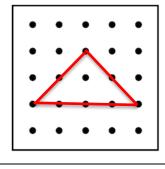


#### AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES SCHOOLS ENRICHMENT CENTRE (AIMSSEC)

#### **AIMING HIGH**

## FIND THE RIGHT TRIANGLES



How many right-angled triangles of different shapes and sizes can you make by joining the dots on the 5 by 5 spotty grid?

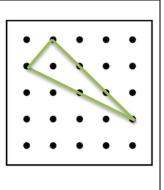
Describe your triangles and say what geometrical properties they have.

# HELP

Use the corner of a sheet of paper or cardboard to check that angles are right angles. This is particularly helpful when the sides of the triangles are not parallel to the edges of the grid.

The green triangle on this grid has an angle of  $90^{\circ}$  and the other two angles are about  $75^{\circ}$  and  $15^{\circ}$ .

How many more right-angled triangles can you find?



### NEXT

Can you find 16 right angled triangles of different shapes and sizes?

Find the areas of your triangles.

Can you find all the isosceles triangles of different sizes and shapes? There are 8 right angled isosceles triangles but there are also isosceles triangles that are not right angled.

How many right-angled triangles of different shapes and sizes are there on a 5 by 5 grid?		
		•       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •
		•       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •         •       •       •       •       •
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