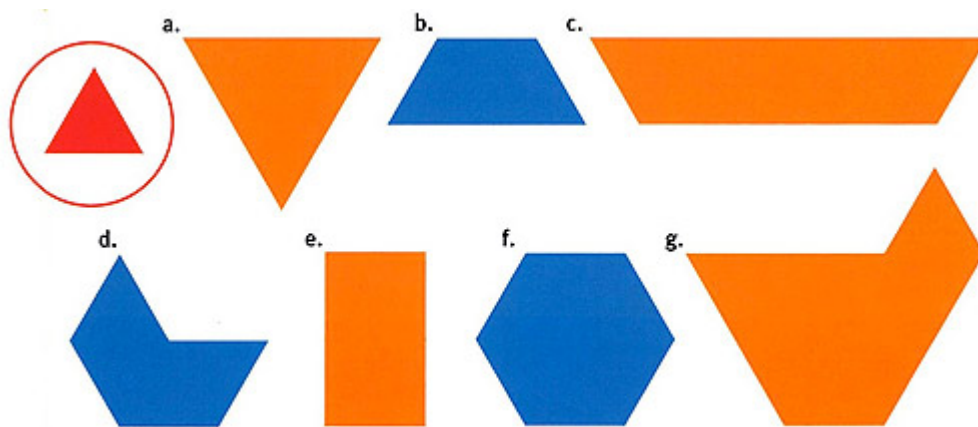# Triangle Teaser

Annotation

Matene knows and uses correct geometric names and properties for given shapes. He applies his understanding that shapes can be made up of other shapes and he can work out the relative areas of given shapes. He is able to use some precise geometric language appropriately.

Problem: Triangle Teaser

The teacher gives the student a sheet with these shapes and poses this problem:

Can you write the name of each of these shapes and describe their features?

Student response

a is an equilateral triangle because all three sides and angles are the same.
b is a trapezium and so is c, because they are both 4-sided and have one pair of parallel sides.
e is a rectangle.
f is a regular hexagon, because all angles and sides are the same.
d and g are hexagons because of their six sides, but they are not regular hexagons, because their angles are not all the same.

Teacher: Now which of the shapes in the top line, *a, b* and *c* has an area of four units if the red triangle is one unit.

Martene: It'd have to be *a* because I can just kind of see three in my mind in *b* and there's obviously more than four in *c*. And in *a*, you can picture the red triangle in the middle with another triangle making each of the three points, so altogether it'd be four.