

Grades 5-8 (S), 9-12 (S)

Duration: 10-20 min

Tools: one Logifaces Set / 2-3 students

Individual work

Keywords: Equilateral triangle, Isosceles triangle, Rectangle, Trapezium

405 - Different Polygons



MATHS / 2D GEOMETRY



LOGIFACES
METHODOLOGY
Erasmus+

TEACHER

Logifaces

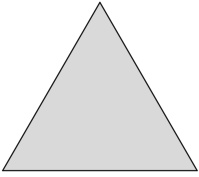

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DESCRIPTION

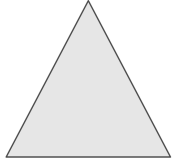
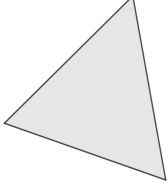



- LEVEL 1** Students consider the block 111 (or 222 or 333) and decide whether it's a regular or a truncated prism. They draw and name the different polygon faces.
- LEVEL 2** Students consider the block 122 (or 112, 113, 133, 223, 233) and decide whether it's a regular or a truncated prism. They draw and name the different polygon faces.
- LEVEL 3** Students consider the block 123 (or 132) and decide whether it's a regular or a truncated prism. They draw and name the different polygon faces.

SOLUTIONS / EXAMPLES

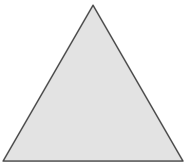
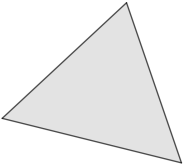

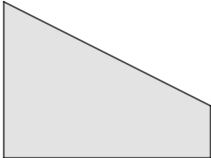
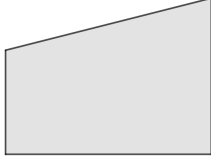
LEVEL 1 The top and bottom faces are equilateral triangles. There are also three vertical faces, which are rectangles. Their bases are the same and their widths are also the same, so there are only two different polygons. The block is a regular prism, because bases are the same and vertical faces are rectangles.

Equilateral triangle (base and top faces)	Rectangle (vertical faces)
	

LEVEL 2 It contains one equilateral triangle and one other triangle (isosceles triangle), and the sides are 2 trapeziums and a rectangle. The block is a truncated prism, because the top and bottom faces are different and only one vertical face is a rectangle.

Equilateral triangle (base face)	Isosceles triangle (top face)	Trapeziums (vertical faces)		Rectangle (vertical face)
				

LEVEL 3 It contains one equilateral triangle and one other triangle (isosceles triangle), and all vertical faces are trapeziums. The block is a truncated prism, because the top and bottom faces are different and the vertical faces are not rectangles.

Equilateral triangle (base face)	Isosceles triangle (top face)	Trapeziums (vertical faces)		
				

PRIOR KNOWLEDGE

Type of polygons, Regular and truncated prisms

RECOMMENDATIONS / COMMENTS

Related task: [406 - Different Triangles](#), to categorise the top faces.

Additional exercise is to categorise sides by congruence. You can find it in exercise [401 - Quadrilateral Faces](#).