THREE PUZZLES WITH POLYHEDRA AND NUMBERS

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We present here three puzzles with polyhedra and numbers. A deltoidal icositetrahedron puzzle, a rhombicuboctahedron puzzle and a rhombic dodecahedron puzzle. It is allowed to print copies for non-commercial purposes. If you want to construct the puzzles print them on heavy paper.

Each puzzle has two parts: the polyhedron model (to cut, fold and glue) and the plates with numbers which must be cut. In the deltoidal icositetrahedron puzzle one obtains 24 different deltoidal plates. In the rhombicuboctahedron puzzle one obtains 18 different square plates and 8 different triangular plates. In the rhombic dodecahedron puzzle one obtains 12 different plates (lozenges).

On each polyhedron face it is necessary to glue photo corners as the figure shows. This operation is easier if one does it just after cutting the polyhedron.

The game consists in placing the plates over the polyhedron faces (as it is shown in the figure) in such a way that the two numbers near each polyhedron edge are equal.

REFERENCES

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Figure 1. Faces, photo corners and plates.