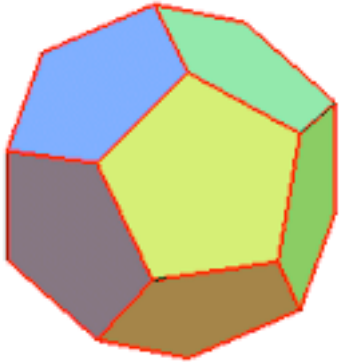


TASK 1 : about the dodecahedron



1. Build the dodecahedron. Use sticks of wood (1m) and rigid connectors.

2. How many :

- vertices ?
- edges ?
- faces ?

3. Use the wool and try to connect the vertices of the dodecahedron.

Can you build a polygon ? Which one ?

Can you build a regular polyhedron ? Which one ?

TASK 2 : about the cube

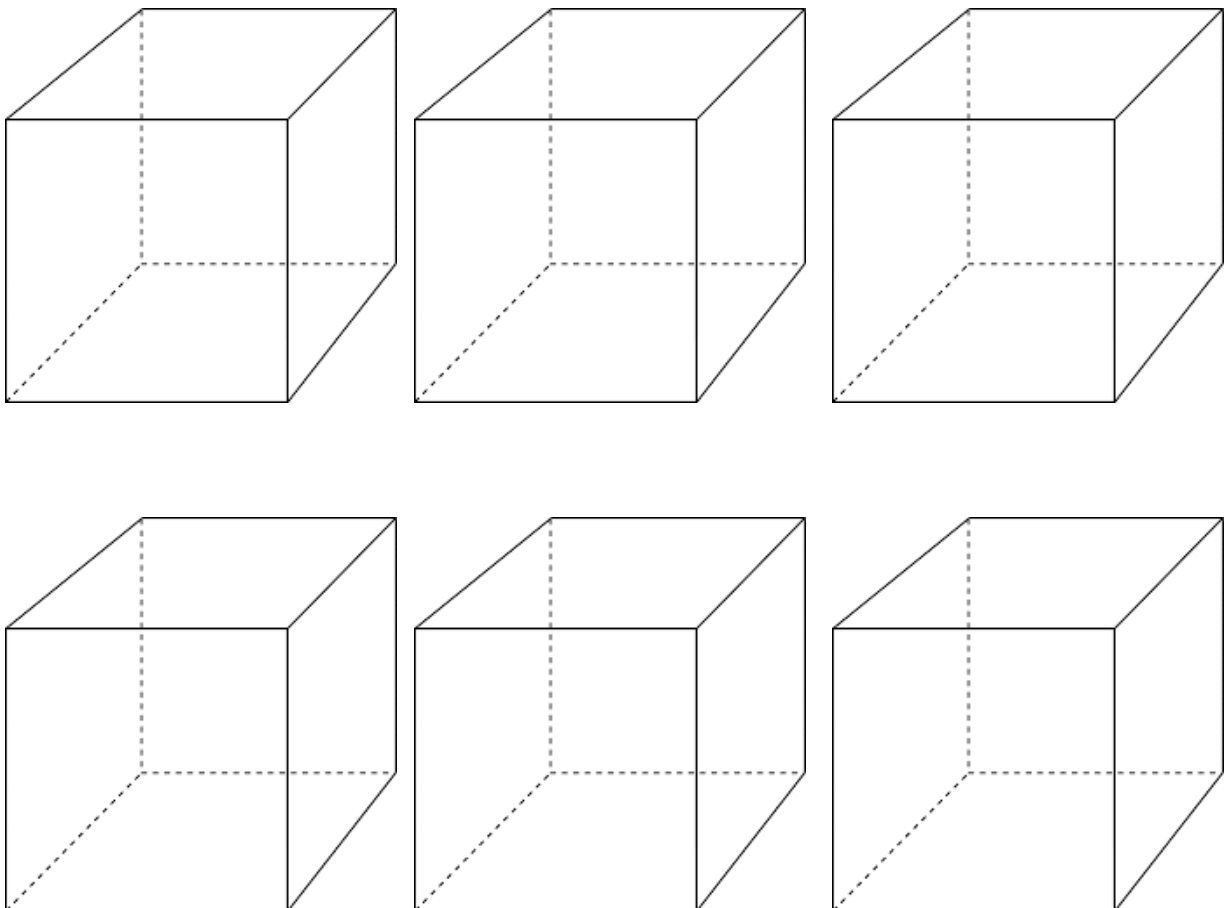
1. Build the cube. Use sticks of wood (1m) and rigid connectors.

2. Use the wool and try to build polygons by "slicing" the cube.

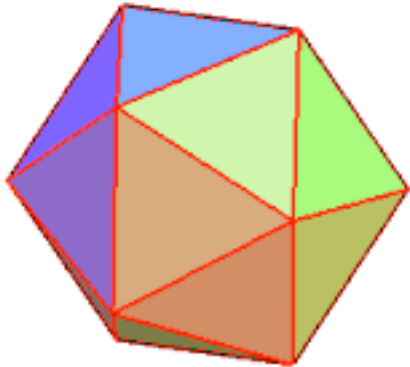
Which sort of polygon did you find ?

Is it possible to find a regular hexagon ?

3. Draw this polygons on your paper note.



TASK 3 : about the icosahedron



1. Build the icosahedron. Use sticks of wood (1m) and flexible connectors.

2. How many :

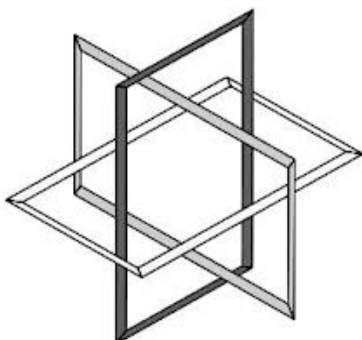
- vertices ?
- edges ?
- faces ?

3. Use the wool and try to connect some vertices of the icosahedron.

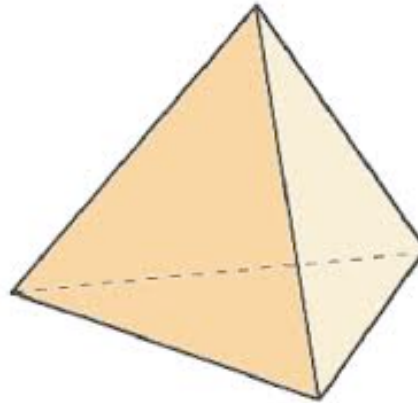
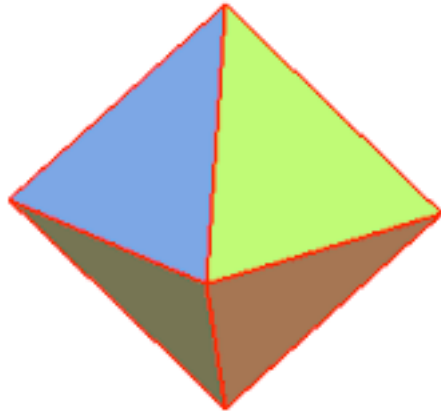
Can you build a rectangle ?

4. Build a second rectangle perpendicular to the first one.

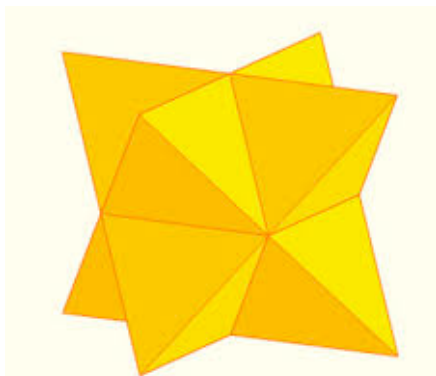
Can you repeat this construction a third time.



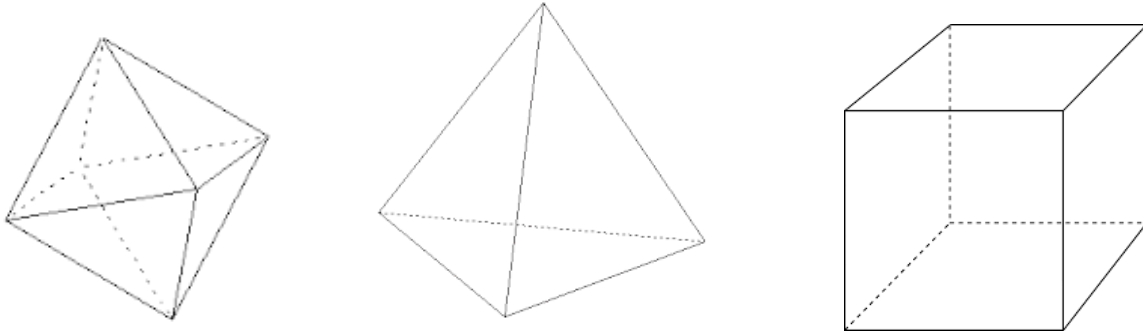
TASK 4 : about the octahedron & tetrahedron



1. Build an octahedron. Use sticks of wood (50cm) and rigid connectors.
2. Build a tetrahedron. Use sticks of wood (1m) and rigid connectors.
3. Is it possible to include the octahedron inside the tetrahedron ?
4. Build a second tetrahedron (sticks of wood 1m). Can you imagine a construction of the stella octangula with all your polyhedrons ?



TASK 5 : about octahedron, tetrahedron & cube



1. Build an octahedron. Use sticks of wood and flexible connectors.
2. Build a tetrahedron. Use sticks of wood and flexible connectors. You have to include the octahedron inside the tetrahedron.
3. Build now a cube. You have to include your last construction in this cube.