## Exploring Geometric Solids

NAME $\qquad$
Explore the six polyhedron listed below. For each shape, determine the number of faces, edges, and vertices (corners). Record your results below.

| Polyhedron | NAME OF <br> EACH FACE | NUMBER OF <br> Sides ON EACH <br> FACE | NUMBER OF <br> FACES | NUMBER OF <br> VERTICES | NUMBER OF <br> EDGES |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tetrahedron |  |  |  |  |  |
| Octahedron |  |  |  |  |  |
| Dodecahedron |  |  |  |  |  |
| Icosahedron |  |  |  |  |  |
| Cube |  |  |  |  |  |

1. Look at the first shape in the table above. Find the sum of the number of faces and the number of vertices. How does this sum compare with the number of edges?
2. Do you think this may be a rule for the other shapes?
3. Add the number of faces and the number of corners for the other shapes in the table. Compare the sum of faces and corners to the number of edges. What did you find out? Is there a rule for all of the shapes?
