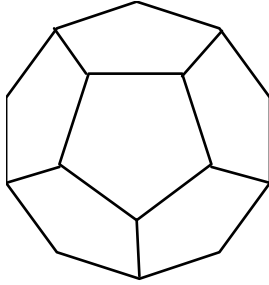


NAME: _____

1. An octagon is a polygon with 8 sides and an octahedron is a polyhedron with 8 faces. Shown here is a dodecahedron. Describe the shape of each face and tell how many faces there are.



2. Explain how you can determine if a polygon is convex.
3. What can you conclude about the figures formed by connecting the midpoints of adjacent sides in a regular polygon?
4. Line l is the perpendicular bisector of \overline{AB} . If you choose points C and D on l and on opposite sides of \overline{AB} , describe $ABCD$ and justify your answer.

[1] pentagon; 12

[2] A polygon is convex if none of its diagonals include points outside the polygon.

[3] They are regular polygons that are similar to the original polygons.

$ABCD$ is a kite; we know C is equidistant from A and B , as is D , so $CA = CB$ and $DA = DB$. If C and D
[4] are both the same distance from l , the figure is a rhombus.