

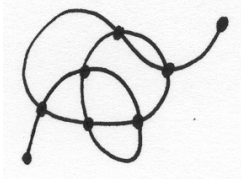
5. (a) Are \otimes and \oslash equivalent by distortion? Why or why not?

(b) Are $\neg\circ$ and Ω equivalent by distortion? Why or why not?

6. (a) How many regular polygons are possible?

(b) How many regular polyhedra (also called *Platonic Solids*) are possible?

7. Verify that the equation for the Euler Characteristic holds for this graph.



8. Explain how to make a shape with only one side that is **not** a Möbius strip.

9. Could each of these situations describe a Platonic Solid? If yes give the **name of the solid**; if not, write **no**.

(a) The faces have three sides. Each vertex has three edges leaving it.

(b) The faces have four sides. Each vertex has four edges leaving it.

(c) The faces have five sides. Each vertex has three edges leaving it.

(d) The faces have five sides. Each vertex has four edges leaving it.

(e) The faces have six sides. Each vertex has four edges leaving it.

10. Are a sphere and a torus equivalent by distortion? Why or why not?

Bonus (1 point) How is “Euler” pronounced?