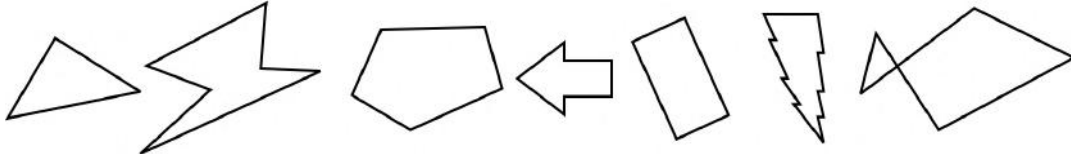


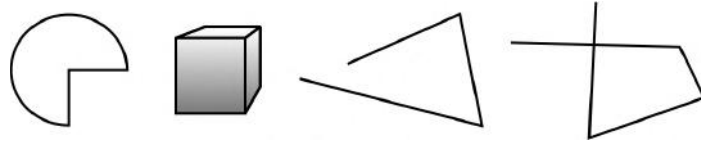
# Polygons

A **polygon** is a flat, two-dimensional figure that consists of line segments, and is *closed*.



The boundary of a polygon is allowed to cross itself, like in the polygon above at the right. However, in this chapter we will mostly deal with *simple* polygons where such does not happen.

These figures are not polygons. Notice how each figure either is not closed, does not consist of line segments, or is not a flat, two-dimensional figure:



Polygons are named after the number of vertices they have. Most of the names for polygons in English have their roots in Greek, using a number and the Greek word “*gonia*” which means “angle”.

Vertices	Name	Greek/Latin
3	triangle	tri = three
4	quadrilateral	quadri (Latin) = four
5	pentagon	pente = five
6	hexagon	hex = six
7	heptagon	hepta = seven
8	octagon	okto = eight

1. Classify each figure as a polygon, or not a polygon.

