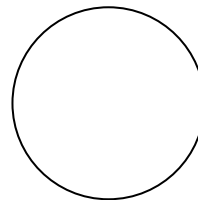


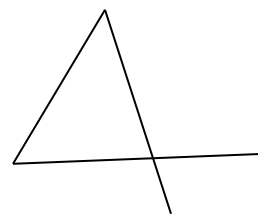
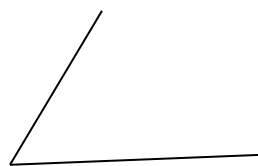
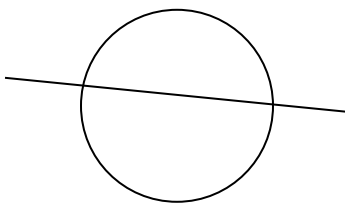
CAD Vocabulary

1. **Workplane** – a *flat surface* or infinite plane onto which a sketch is created.
2. **Sketch** - a 2-Dimensional Engineering *drawing*.
3. **Dimension** - length of a line, degrees of angle or distance/angle of an assembly relationship.
4. **Valid Profile** – A sketch that represents a closed loop of lines.

Valid Profiles:



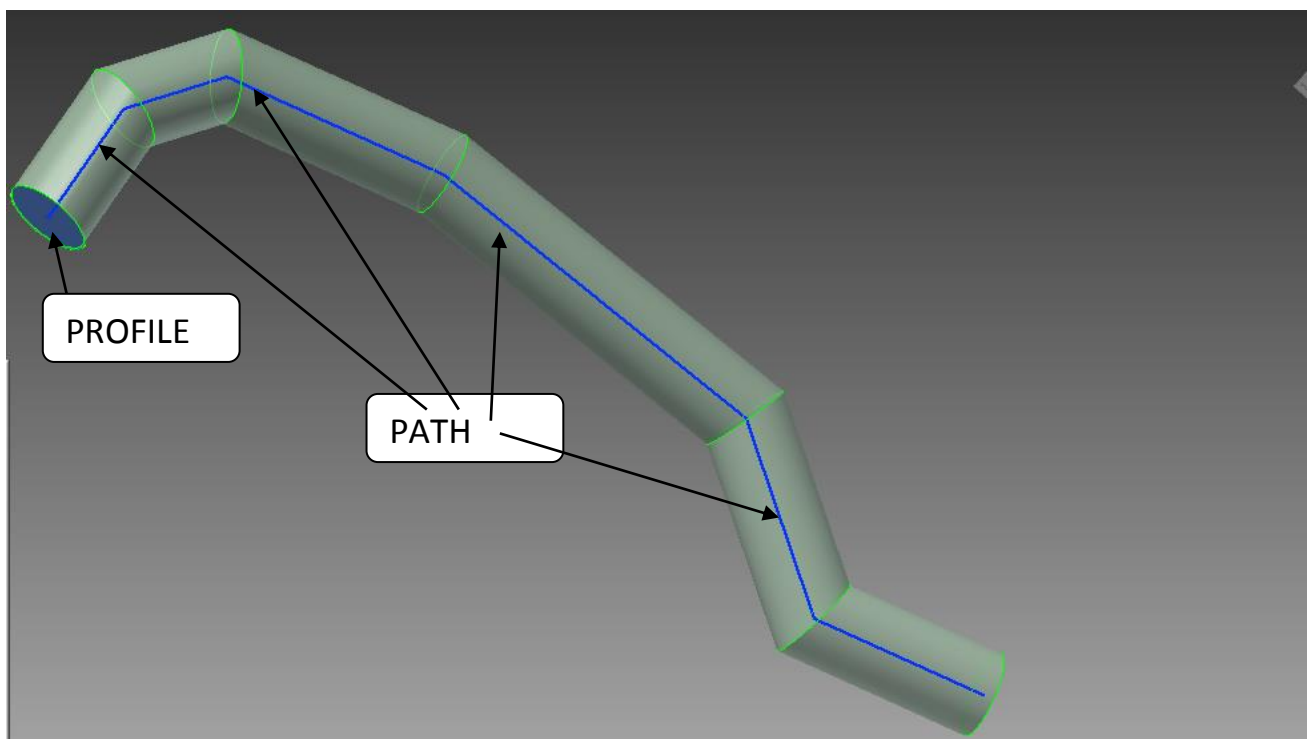
Invalid Profiles:



5. **Extrusion** - Adding or subtracting (*Joining* or *Cutting*) material from a 3-D design.
6. **Part** – A single 3-D Model created using *Inventor*. Parts can be *English* or *Metric*.
7. **Constraint** – Placing a restricting condition on a line, angle or assembly relationship. The restricting condition can be a *Length, Fix, Parallel, Perpendicular, Coincident, Collinear, Concentric, Horizontal, Vertical, Tangent, Symmetric, Equal or Smooth*
8. **Project Folder** – The Parts and Assemblies contained in an Inventor project.
9. **Axis (Axes– *Plural*)** – There are three of them – X, Y and Z
10. **Feature** –3-Dimensional objects – can be added or subtracted from 3-Dimensional

designs. ***Extrusions, Revolves and Sweeps*** are examples of Features.

11. ***Revolve*** – revolving a ***profile*** about an ***axis*** to create a 3-D model.
12. ***Sweep*** – A solid that is created by moving a ***profile*** along a ***path***.



13. ***Mate-Mate*** – Constraining two flat faces - face to face.

14. ***Mate-Flush*** – Constraining two flat faces so that both faces are in the same direction of the same plane.

15. ***Mate-Axis*** – Aligning the center axis of two cylinders or cones.

Crossing Selection – Any lines that are touched by the crossing will be selected. Crossings are dotted lines.

Window Selection – ONLY lines that are entirely within the window will be selected. Windows are solid lines.