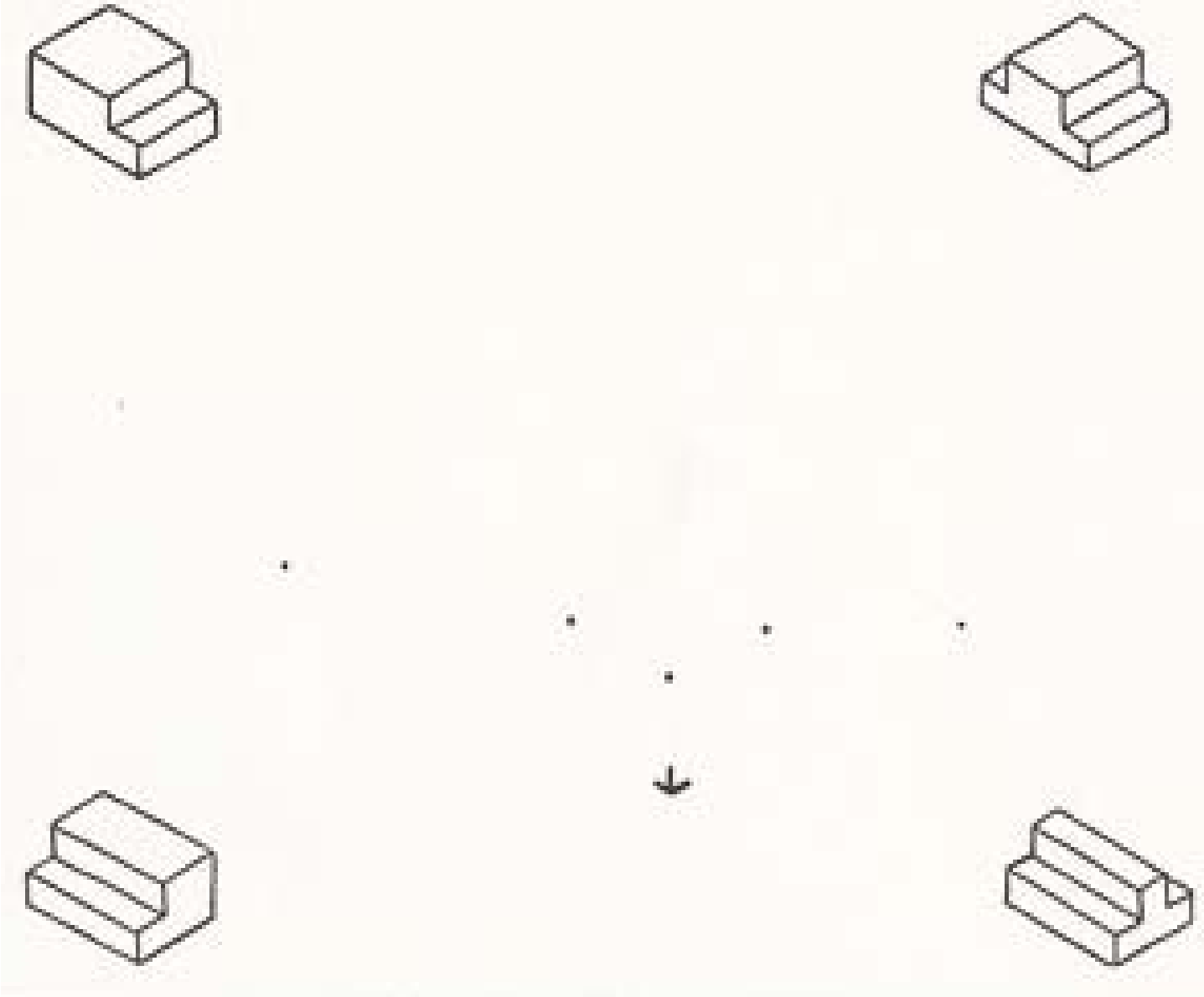


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1. Sketch one of the isometric shapes below:



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2. **Explain** how to perform an extrusion in Inventor. Your explanation should be in complete sentences, in step-by-step form.
 - a) Create a **Valid Sketch**
 - b) Click on the **Extrude** tool
 - c) Select the **profile**
 - d) Select the **direction**
 - e) Select the **extent**
 - f) Select **Add** or **Subtract** material

3. Define Dimension: **length** of a line, **degrees** of angle or **distance/angle** of an assembly relationship.

4. Define Constraint: **Placing a restricting condition** on a line, angle or assembly relationship. Also called a strong dimension.

5. Define Profile: **A sketch that represents a view of a 3-D object.**

6. Define Extrusion: **Pulling or pushing** (adding or subtracting) material from a 3-D design.

7. Define Revolve: **revolving a profile** about an **axis** to create a 3-D model.

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8. Define Assembly: *a combination of **parts** that are **constrained** together.*

9. Give three examples of **Features**: *Extrusion, Fillet, Chamfer, Sweep, Revolve, Emboss*

10. 3-D Solid Models can be given *shape, surface and texture.*

11. Simple “Line Drawings” are called *Wire Frames.*

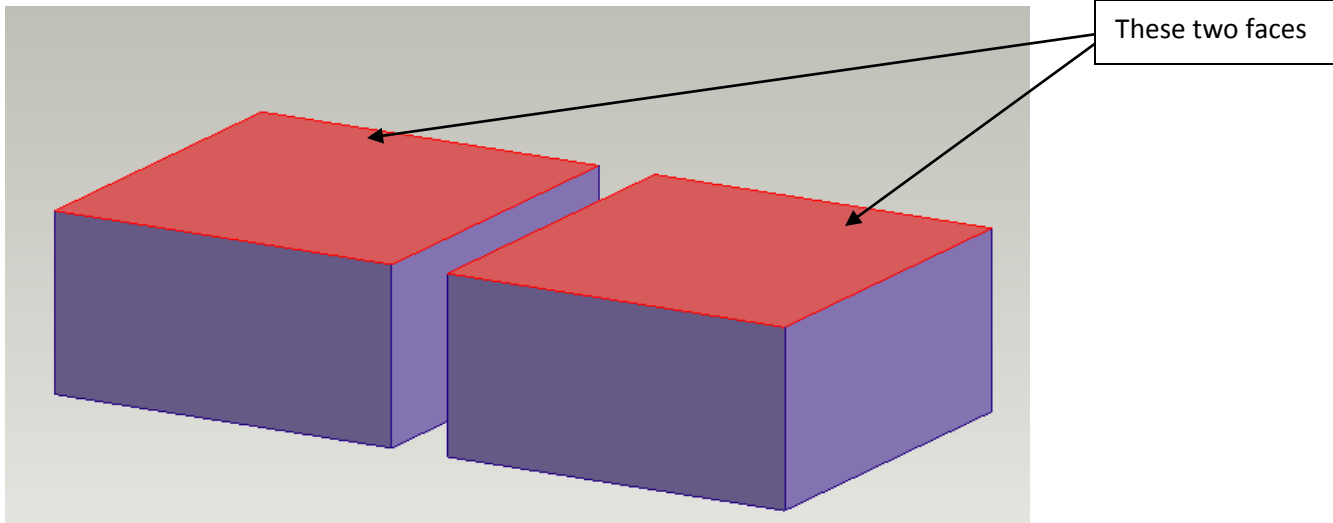
12. Two Dimensional Drawings can be *extruded*, or stretched. This turns a two dimensional object into a three dimensional object.

13. Computer Modeling has completely re-invented the field of *product design.*

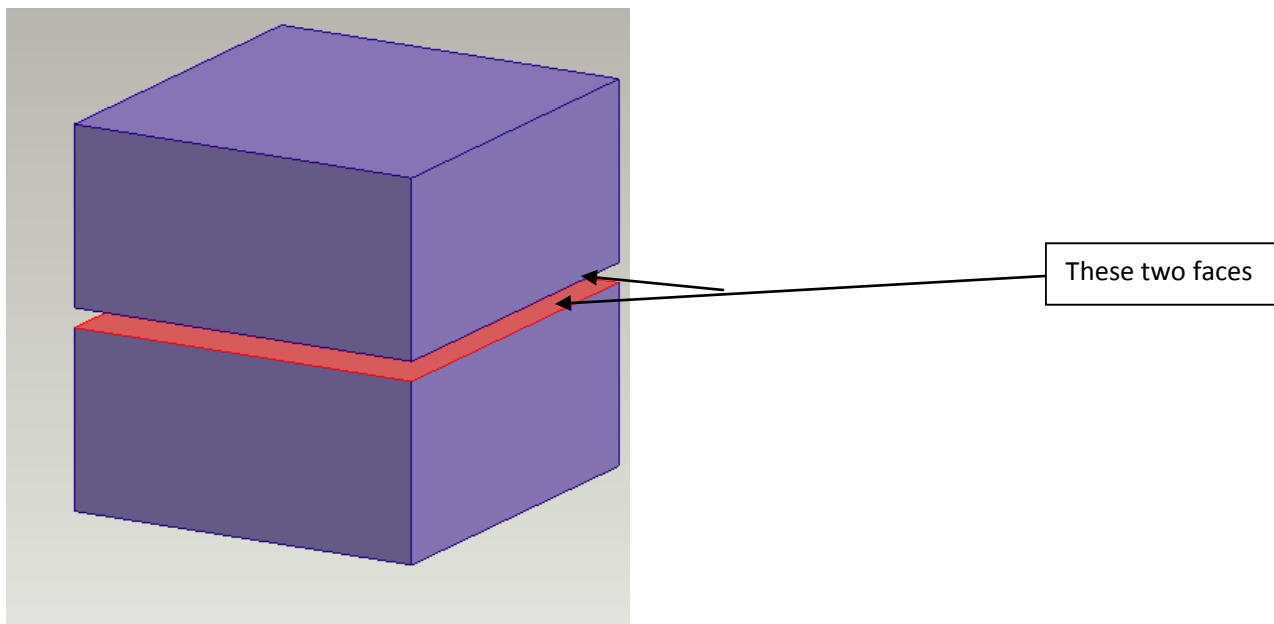
14. Before Computer Aided Design, models were created with *clay* and other modeling materials.

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15. The Diagram below shows a:
a) *Mate-Mate*
b) *Mate Flush*
c) *Insert*



16. The Diagram below shows a:
a) *Mate-Mate*
b) *Mate Flush*
c) *Insert*



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17. The Diagram below shows a:
- a) *Mate-Mate*
 - b) *Mate Flush*
 - c) *Insert*

