

# Mechanical Drawing: Board & CAD Techniques

## Chapter 6 Multiview Drawing

### Chapter Summaries

#### **Section 6.1 Understanding Orthographic Projection**

- The views that make up multiview drawings are developed using the principles of orthographic projection.
- In first-angle projection, the object is projected onto the planes from the first angle, or quadrant. Third-angle projection uses the third quadrant, not the first, for projection.
- The number of views needed to describe an object completely depends on its shape and characteristics.
- Multiview drawing represents an object on paper using views as seen from different positions. These views are then arranged in a standard order so that trained drafters can understand them.
- Views are chosen based on an object's characteristic view, its normal position, and the relative number of hidden lines in the views that are being considered.

#### **Section 6.2 Creating a Multiview Drawing Using CAD**

- Although CAD techniques may differ in their approach from board drafting techniques, all drafting principles apply equally to both. However, CAD has tools that add efficiency to the processes.
- One way to create a multiview drawing using CAD is to create the necessary views independently of each other.
- A second method for creating multiview drawings is to extract the necessary views from a 3D model.