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Content Objective: I will be able to draw three-dimensional figures from different perspectives.

| TERM                 | DESCRIPTION   | EXAMPLE |
|----------------------|---|---------|
| ISOMETRIC DRAWING    | A technical drawing that looks 3-D and can be created on a grid of dots.                          |         |
| ORTHOGRAPHIC DRAWING | Two-dimensional drawings of the front, top, and side views of a three-dimensional object.         |         |
| FOUNDATION DRAWING   | A diagram of the base of a 3-D figure showing the number of cubes above each square unit of area. |         |

EXAMPLE 1: For each figure draw the orthographic views and list the number of cubes.

|    | Isometric Drawing | Orthographic Drawing |           |          | Number of Cubes |
|----|-------------------|----------------------|-----------|----------|-----------------|
|    |                   | FRONT VIEW           | SIDE VIEW | TOP VIEW |                 |
| a. |                   |                      |           |          | 4               |
| b. |                   |                      |           |          | 5               |

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showing the number of cubes above each square unit of area. **3 1**

EXAMPLE 1: For each figure draw the orthographic views and list the number of cubes.

|    | Isometric Drawing | Orthographic Drawing |           |          | Number of Cubes |
|----|-------------------|----------------------|-----------|----------|-----------------|
|    |                   | FRONT VIEW           | SIDE VIEW | TOP VIEW |                 |
| a. |                   |                      |           |          |                 |
| b. |                   |                      |           |          |                 |
| c. |                   |                      |           |          | 12              |

Notes: VIEWS OF THREE-DIMENSIONAL OBJECTS

EXAMPLE 2: Identify which isometric drawing is represented by the given foundation drawing.

Isometric Drawing

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Notes: VIEWS OF THREE-DIMENSIONAL OBJECTS

EXAMPLE 2: Identify which isometric drawing is represented by the given foundation drawing.

| Foundation Drawing | A. | B. | C. |
|--------------------|----|----|----|
|                    |    |    |    |

QUICK CHECK: Create the foundation drawings for the remaining isometric drawings above.

| Isometric Drawing | Foundation Drawing |
|-------------------|--------------------|
|                   |                    |
|                   |                    |
|                   |                    |

EXAMPLE 3: Use the orthographic drawing to create an isometric drawing of the figure.

| front | top | side |
|-------|-----|------|
|       |     |      |

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QUICK CHECK: Create the foundation drawings for the remaining isometric drawings above.

| Isometric Drawing | Foundation Drawing |
|-------------------|--------------------|
|                   |                    |

EXAMPLE 3: Use the orthographic drawing to create an isometric drawing of the figure.

| front | top | side |
|-------|-----|------|
|       |     |      |

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