**1.3 Sketching: Isometric, Orthographic, Dimensioning and Scaling**

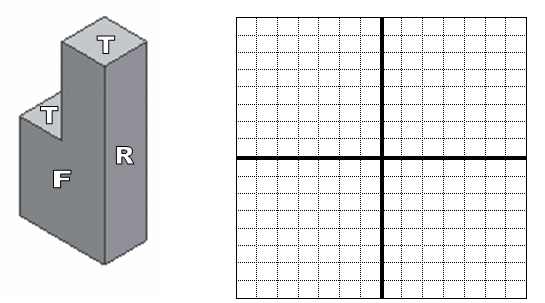
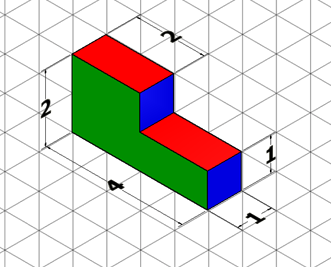
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_Period:\_\_\_

1. What is an isometric sketch?
2. What is an orthographic sketch?
3. Label the line types shown below:

6. Label the line types shown in the drawing below:

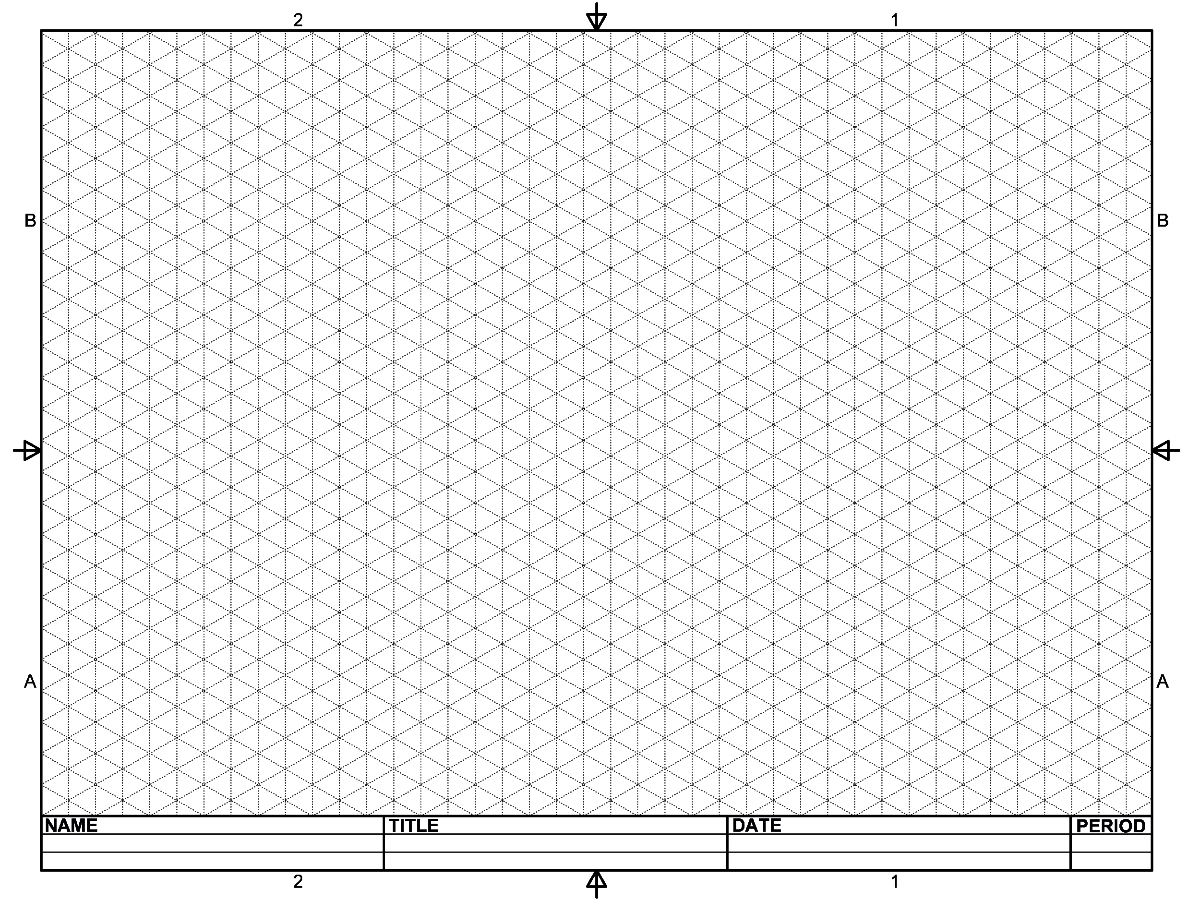
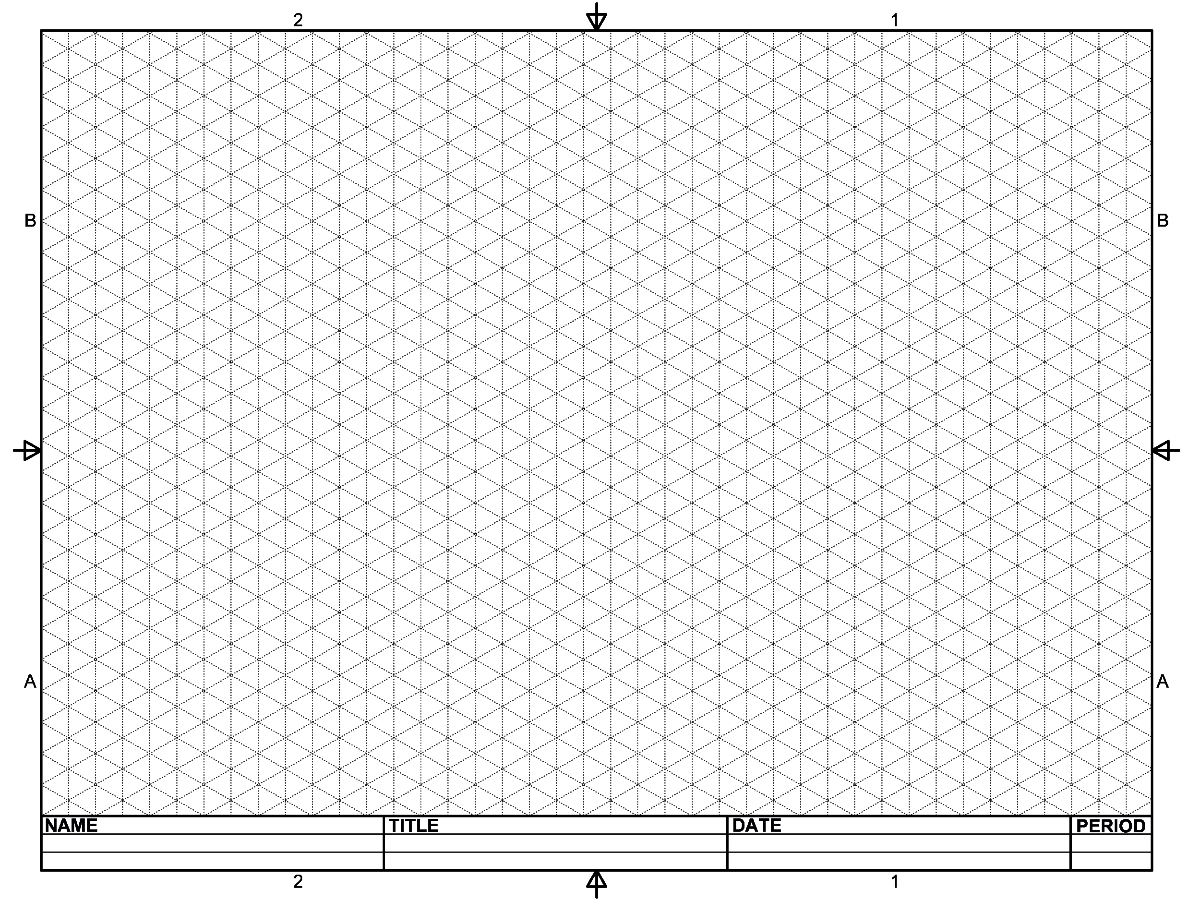
|  |  |
| --- | --- |
|  | 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ e. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

5. Draw the three views of this object, in the correct order, which is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



Orthographic Projection Activity 2:

Draw the figure—in 3D—on the isometric graph paper below. Don’t forget to number each problem you sketch. **Draw small enough to fit five drawings!**



1. What are dimensions?
2. Follow along as your teacher discusses the presentation on dimensioning guidelines. List the rules or guidelines below.

* Rule 1:
* Rule 2:
* Rule 3:
* Rule 4:
* Rule 5:
* Rule 6:
* Rule 7:
* Rule 8:

1. When using ¼ in. graph paper, each **square** equals **¼ in. or .25 in**. Make the following conversions:

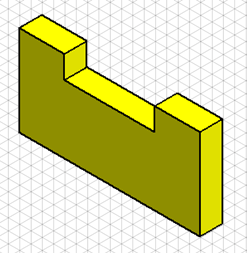
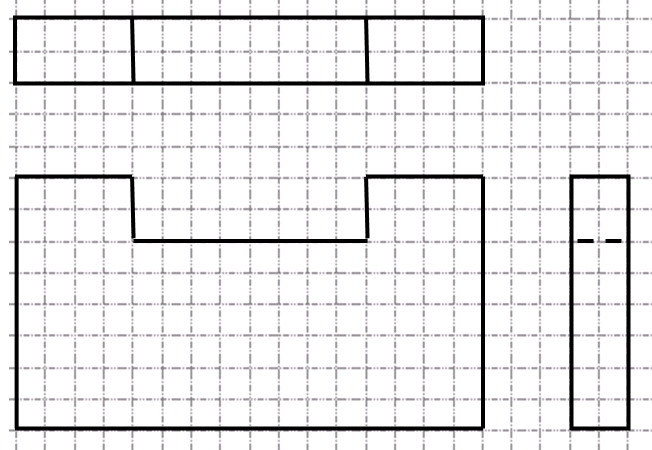
1 in. = \_\_\_\_\_\_\_ squares 12 squares = \_\_\_\_\_\_\_ in.

1 ¼ in. = \_\_\_\_\_\_\_ squares 7 squares = \_\_\_\_\_\_\_ in.

2 in. = \_\_\_\_\_\_\_ squares 9 squares = \_\_\_\_\_\_\_ in.

2 ¾ in. = \_\_\_\_\_\_\_ squares 3 squares = \_\_\_\_\_\_\_ in.

1. Use the dimensioning guidelines to dimension this sketch. Use extension and dimension lines! Scale is ¼” = 1 square.



9. Draw the three views of this object to scale, and then add appropriate dimensions.

