

LEARNING OBJECTIVES

After completing this lesson, you will be able to:

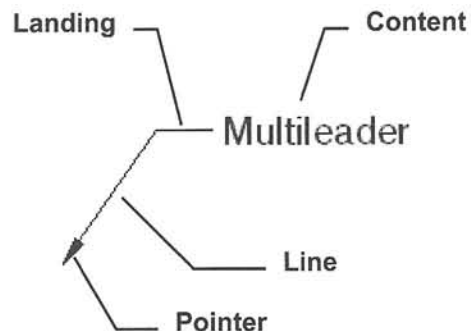
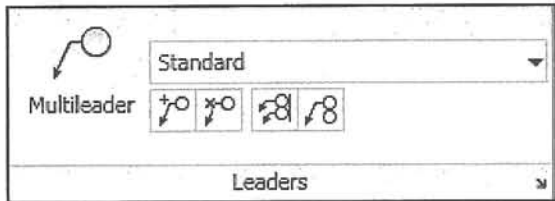
1. Create Multileaders
2. Modify Multileader lines
3. Create a New Multileader Style
4. Dimension angular surfaces
5. Add Special Characters
6. Pre-assign a Prefix or Suffix to a dimension.

LESSON 19

MULTILEADER

A multileader is a single object consisting of a **pointer**, **line**, **landing** and **content**. You may draw a multileader, Pointer first, tail first or content first.

To select the Multileader use:
Annotate tab / Leaders panel

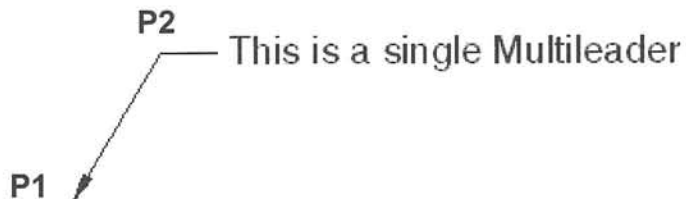


Create a single Multileader


1. Select the **Multileader** tool 

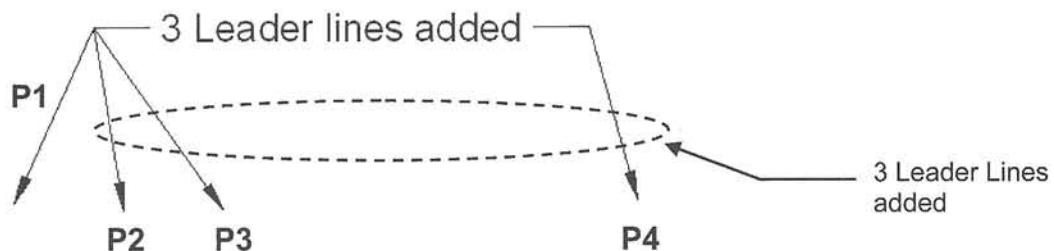
Command: `_mleader`

2. Specify leader arrowhead location or [leader Landing first/Content first/Options]
<Options>: **specify arrowhead location (P1)**
3. Specify leader landing location: **specify the landing location (P2)**
4. The Multitext editor appears. **Enter text then select "Close Text Editor"**




Add leader lines to existing Multileader

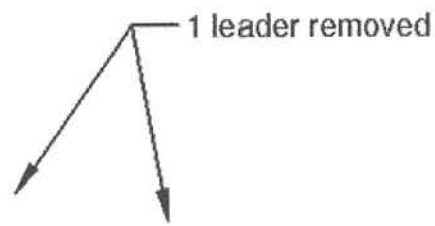
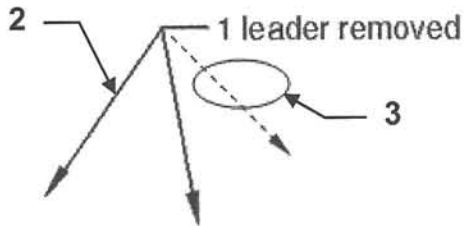
1. Select the **Add Leader** tool 
2. Select a multileader: **click on the existing multileader line (P1)**
3. Specify leader arrowhead location: **specify arrowhead location (P2)**
4. Specify leader arrowhead location: **specify next arrowhead location (P3)**
5. Specify leader arrowhead location: **specify next arrowhead location (P4)**
6. Specify leader arrowhead location: **press <enter> to stop**



MULTILEADER...continued

Remove a leader line from an existing Multileader

1. Select the **Remove Leader** tool 
2. Select a multileader: **click anywhere on the existing multileader**
3. Specify leaders to remove: **select the leader line to remove**
4. Specify leaders to remove: **press <enter> to stop**

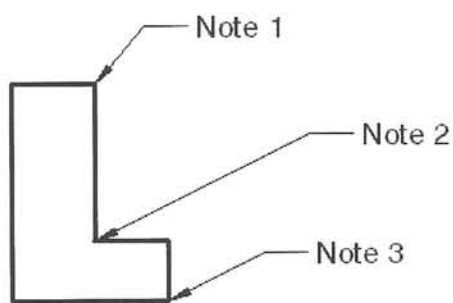


Align Multileaders

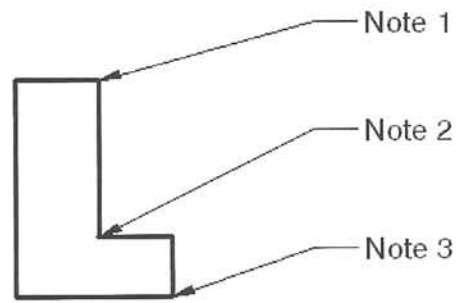
1. Select the **Align Multileader** tool 

Command: `_mleaderalign`

2. Select multileaders: **select the leaders to align (Note 1 and Note 3)**
3. Select multileaders: **press <enter> to stop selecting**
Current mode: Use current spacing
4. Select multileader to align to or [Options]: **select the leader to align to (Note 2)**
5. Specify direction: **move the cursor and press left mouse button**



Before Align




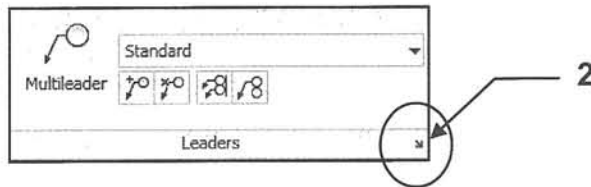
After Align

Note: Collect Multileader  works best with Blocks and will be discussed in another lesson.

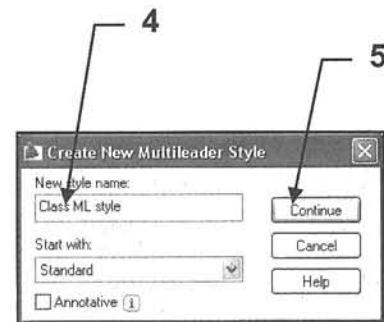
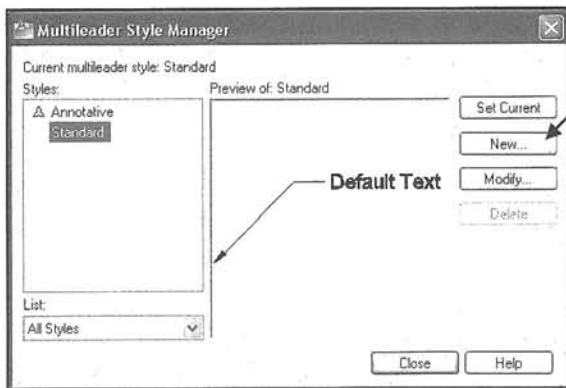
CREATE A MULTILEADER STYLE

You may create **Multileader styles** to control its appearance. This will be similar to creating a dimension style.

1. Start a **New** file using **Border A.dwt**
2. Select the **Multileader Style Manager** by selecting the  on the Leader panel.



3. Select the **New** button.
4. Enter the New Style name: **Class ML style**
5. Select the **Continue** button.

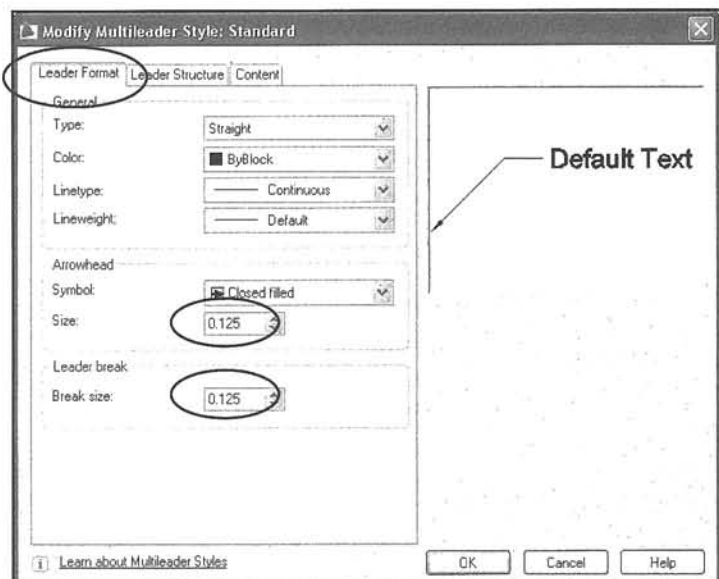


6. Select the **Leader Format** tab and change the settings as shown below.

General – You may set the leader line to straight or spline (curved). You may change the color, linetype and lineweight.

Arrowhead – Select the symbol for the pointer and size of pointer.

Leader break - specify the size of the gap in the leader line if Dimension break is used. (Refer to page 17-7 for Dimension break reminder)



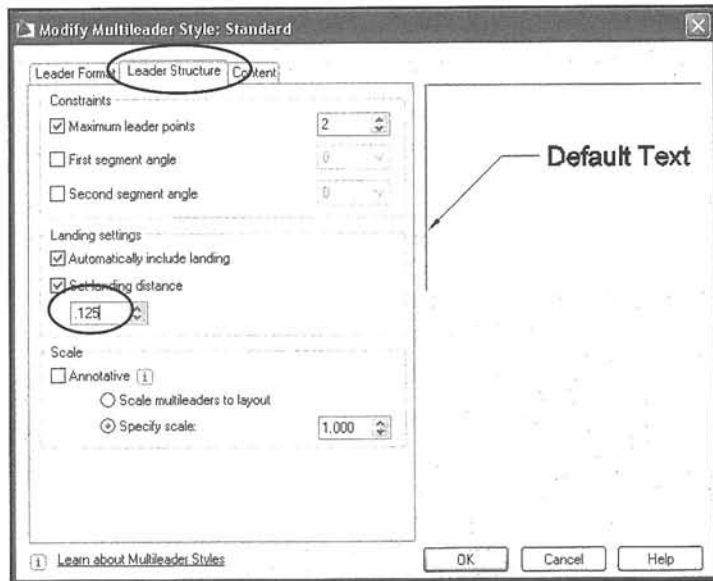
CREATE A MULTILEADER STYLE....continued

7. Select the **Leader Structure** tab and change the settings as shown below.

Constraints – Specify how many line segments to allow and on what angle.

Landing Settings – Specify the length of the Landing (the horizontal line next to the note) or turn it off by unchecking the “Automatically include landing” box.

Scale – “Annotation” will be discussed in Lesson 27.

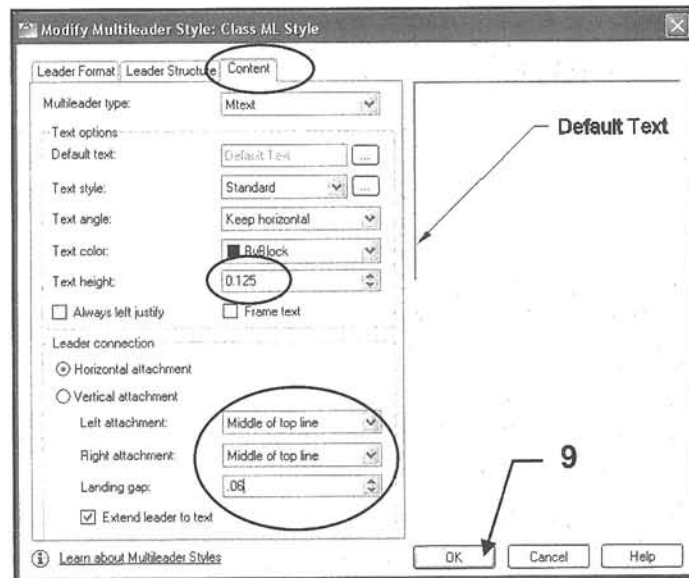


8. Select the **Content** tab and change the settings as shown below.

Multileader type – Select what to attach to the landing.

Text Options – Specify the leader note appearance.

Leader Connection – Specify how the note attaches to the landing.



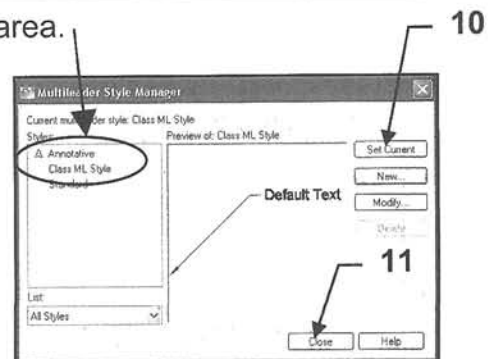
9. Select the **OK** button.

The **Class ML style** should be listed in the “Style” area.

10. Select **Set Current** button.

11. Select **Close** button.


12. **Re-Save** your **Border A.dwt** again. Now whenever you use **Border A-2012** the Multileader style **Class ML style** will be there.

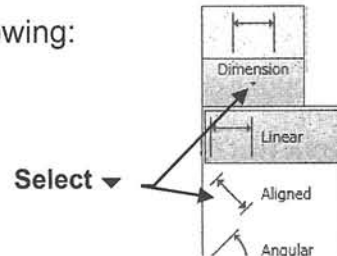


ALIGNED DIMENSIONING

The **ALIGNED** dimension command aligns the dimension with the angle of the object that you are dimensioning. The process is the same as Linear dimensioning. It requires two extension line origins and the placement of the dimension text location. (Example below)

1. Select the **ALIGNED** command using one of the following:

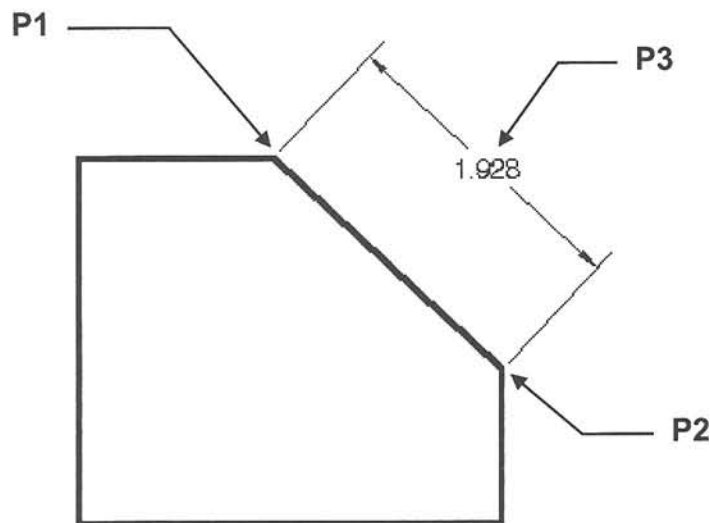
Ribbon = Annotate tab / Dimension panel / 
or
Keyboard = Dal <enter>



Command: `_dimaligned`

2. Specify first extension line origin or <select object>: **select the first extension line origin (P1)**
3. Specify second extension line origin: **select the second extension line origin (P2)**
4. Specify dimension line location or [Mtext/Text/Angle]: **place dimension text location (P3)**

Dimension text = **the dimension value will appear here**



SPECIAL TEXT CHARACTERS

Characters such as the **degree symbol** (°), **diameter symbol** (Ø) and the **plus / minus symbols** (±) are created by typing %% and then the appropriate “code” letter.

SYMBOL	CODE
Ø Diameter	%%C
° Degree	%%D
± Plus / Minus	%%P

SINGLE LINE TEXT

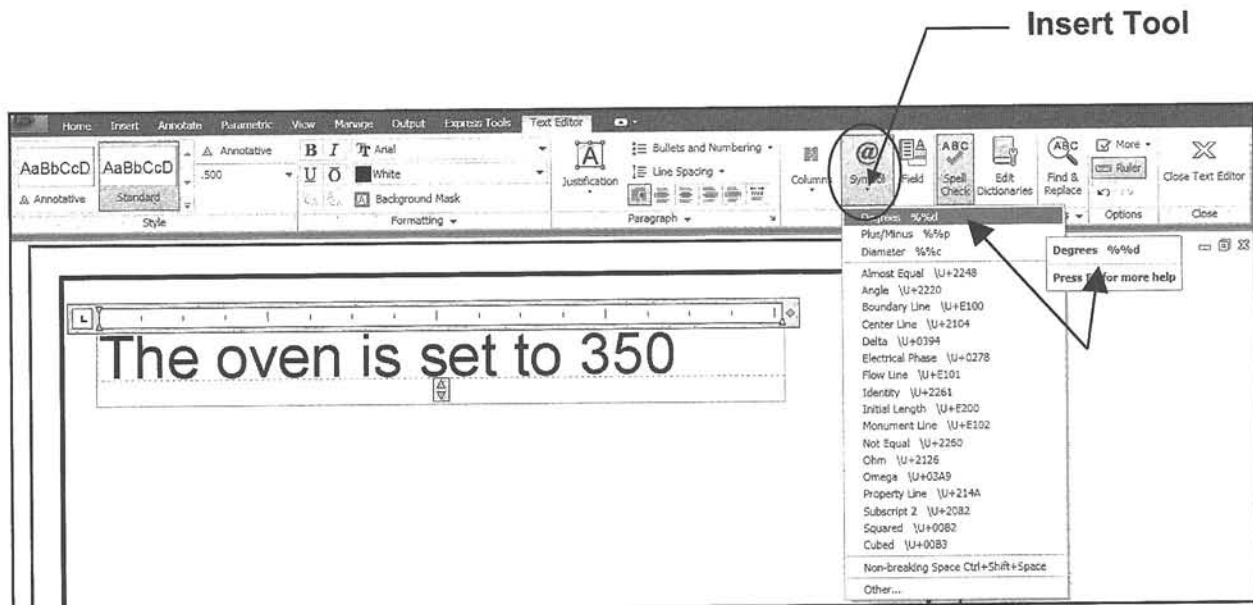
When using “Single Line Text”, type the code in the sentence. After you enter the code the symbol will appear.

For example:

Entering 350%%D will create: **350°**. The “D” is the “code” letter for degree.

MULTILINE TEXT

When using Multiline Text you may enter the code in the sentence or you may select a symbol using the **Symbol tool** located on the **Insert panel**.



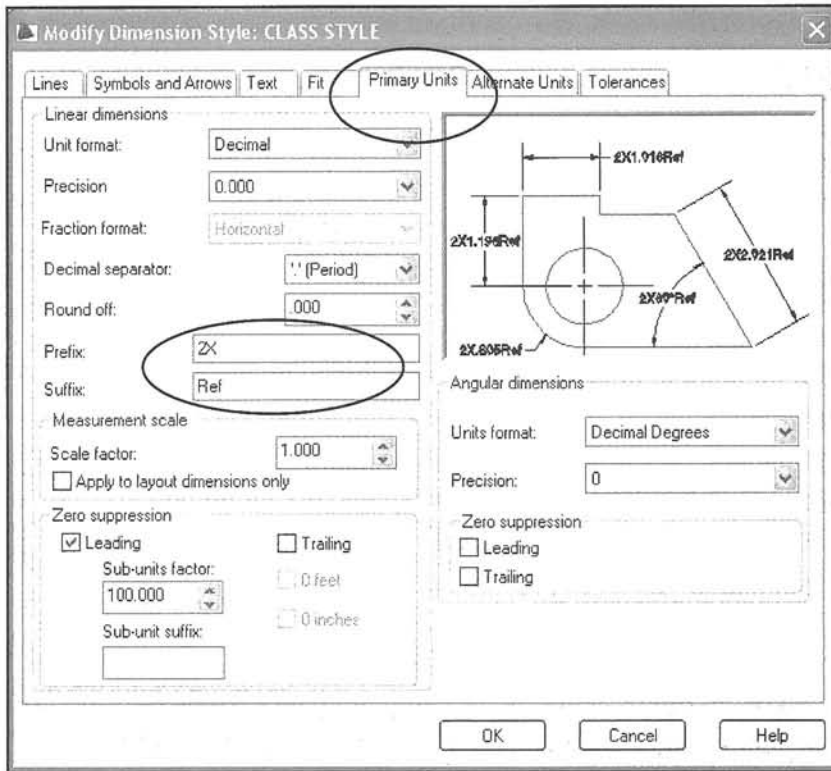
PREFIX and SUFFIX

The **PREFIX** (before) and the **SUFFIX** (after) allows you to preset text to be inserted automatically as you dimension.

Note:

You would use this if you had multiple dimensions that included a prefix or a suffix. If you had only 1 or 2 you would merely edit the dimension text as shown on page 17-2.

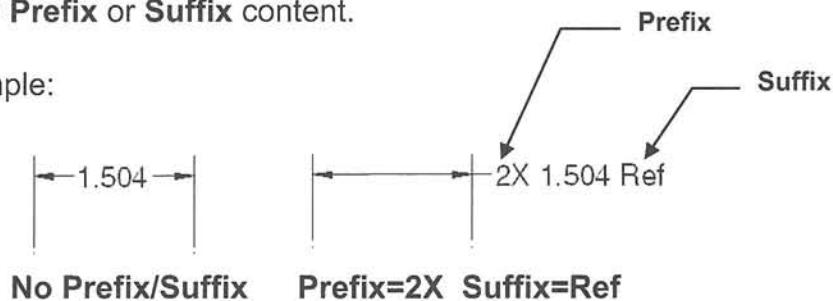
1. Select **Dimension Style**.



2. Select the **Primary Units** tab.

3. Enter the **Prefix** or **Suffix** content.

Example:

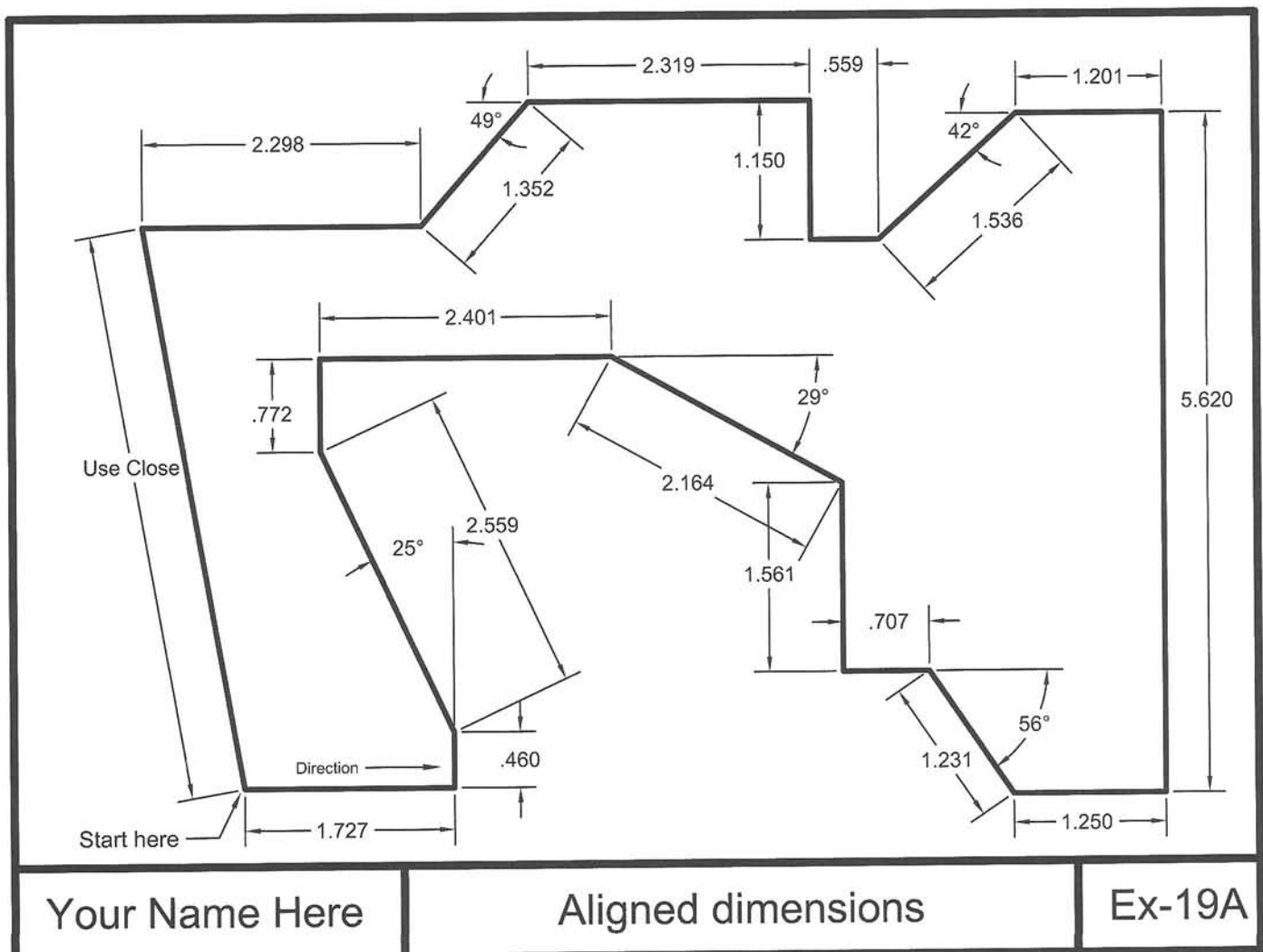


Note: If you enter text in the Prefix box when drawing Radial dimensions, the “R” for radius or the **diameter symbol**, will not be automatically drawn. You must also add the letter R or symbol code to the prefix box. Example: **2X R.** Or **2X %%C**

EXERCISE 19A

INSTRUCTIONS:

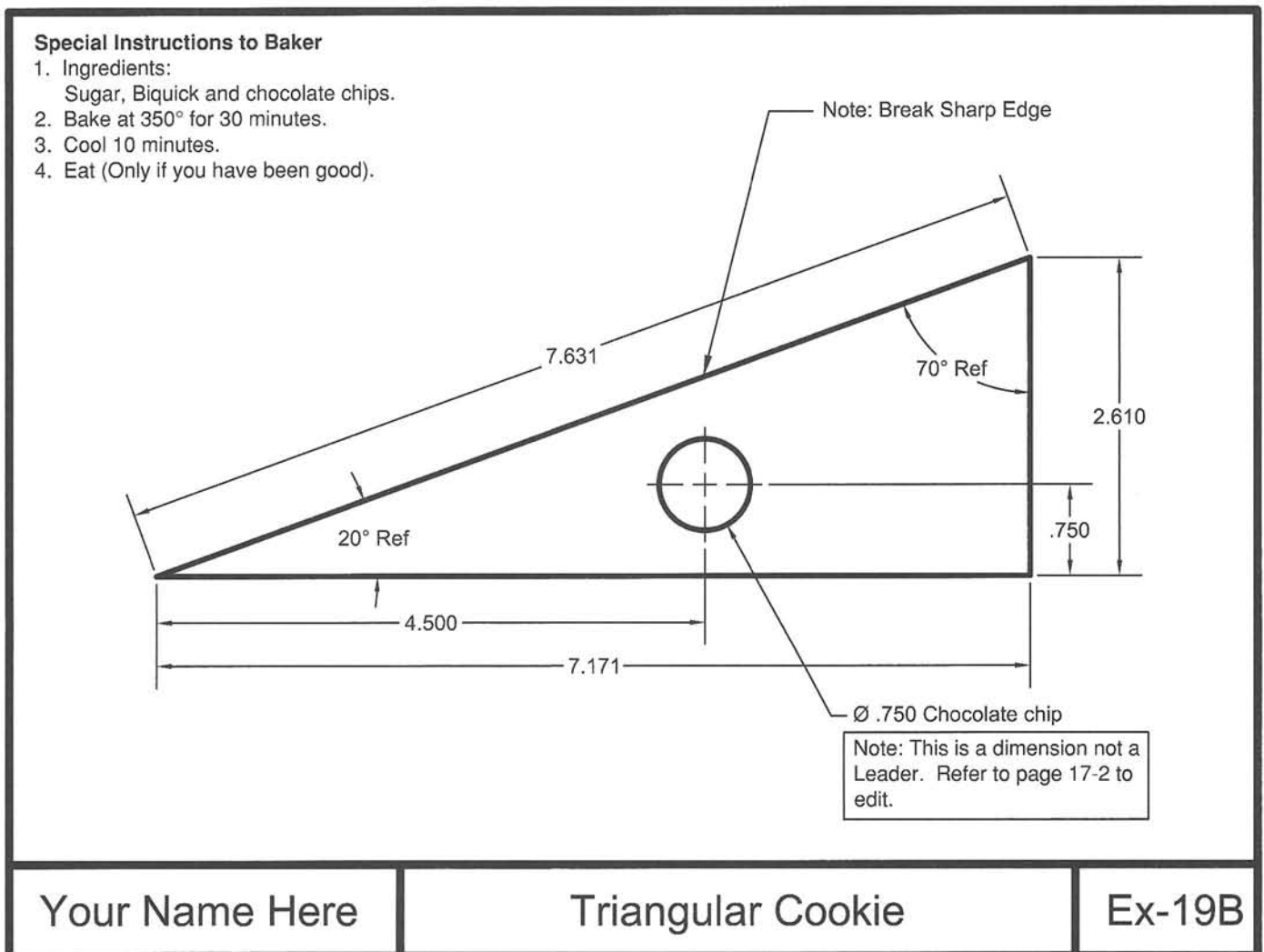
1. Start a **New** file using **Border A-2013.dwt**
2. Draw the Lines as shown using Polar coordinates or Dynamic Input. (Lessons 9 &11)
3. Use Layer Object lines.
4. Dimension using Linear, Aligned and Angular.
5. Use Dimension Style "Class Style" and Layer Dimension
6. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
7. Save as **EX19A**
8. Plot using Page Setup **Class Model A**



EXERCISE 19B

INSTRUCTIONS:

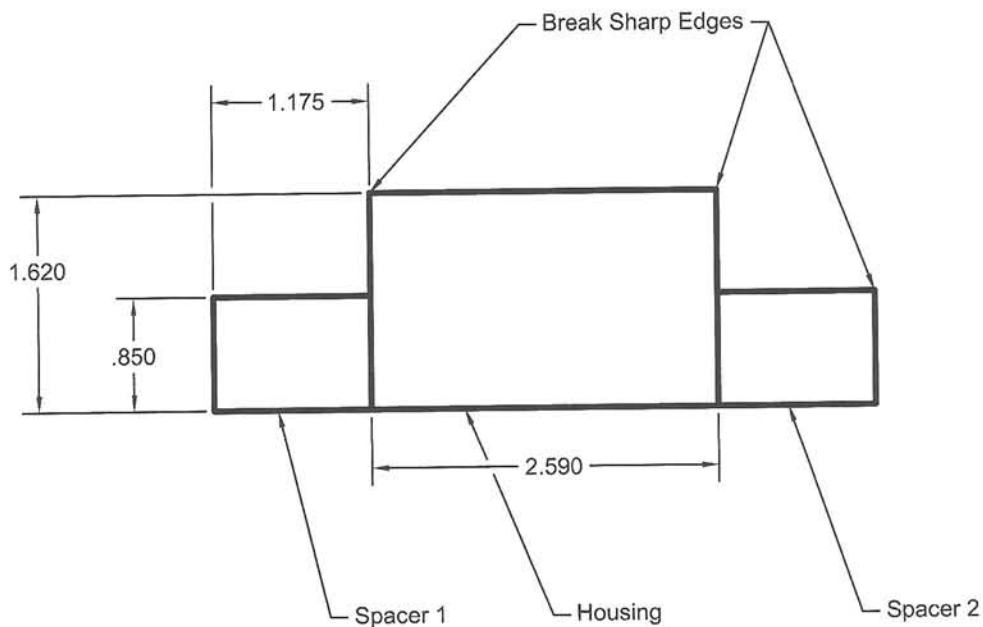
1. Start a **New** file using **Border A-2013.dwt**
2. Draw the object shown below.
3. Use Layer Object lines.
4. Dimension as shown.
5. Use Dimension Style "Class Style" and Layer Dimension.
6. For the Note: "Special Instructions to Baker" use: Text Ht. = .125 Layer = Text
7. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
8. Save as **EX19B**
9. Plot using Page Setup **Class Model A**



EXERCISE 19C

INSTRUCTIONS:

1. Start a **New** file using **Border A-2013.dwt**
2. Create the Multileader style shown on page 19-4 if you haven't already.
3. Draw the object shown below.
4. Use Layer Object lines.
5. Dimension as shown.
6. Use Dimension Style "Class Style" and "Class ML style" and Layer Dimension.
7. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
8. Save as **EX19C**
9. Plot using Page Setup **Class Model A**



Your Name Here

Multileader and Dim. Break

Ex-19C

Notes: