

LEARNING OBJECTIVES

After completing this lesson, you will be able to:

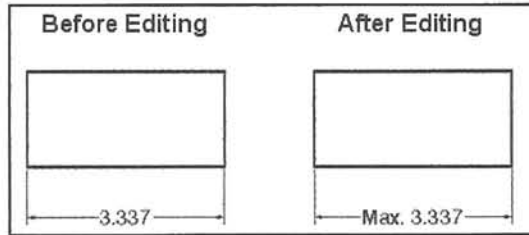
1. Edit the dimension text without changing the value
2. Move the dimension text within the dimension lines
3. Modify an entire dimension style
4. Override a dimension style
5. Use the Properties Palette to change a dimension
6. Break intersecting extension and dimension lines
7. Add a Jog to a dimension line
8. Adjust the distance between dimensions

LESSON 17

EDITING DIMENSION TEXT VALUES

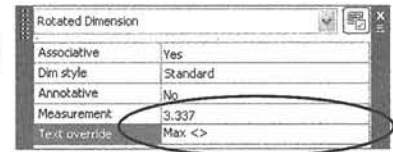
Sometimes you need to modify the dimension text value. You may add a symbol, a note or even change the text of an existing dimension. The following describes 2 methods.

Example: Add the word "Max." to the existing dimension value text.



Method 1 (Properties Palette).

1. **Quick Properties** status bar button must be **ON**.
2. Select the dimension you want to override.
3. Scroll down to **Text override**
(Notice that the actual measurement is directly above it.)
4. Type the new text (**Max**) and **< >** and press **<enter>**
(**< >** represents the associative text value 3.337)



Important:

If you do not use **< >** the dimension will no longer be **Associative**.

Method 2 (Text Edit).

1. Type on the Command line: **ed <enter>** (This is the **text edit** command)
2. Select the dimension you want to edit.

Associative Dimension

If the dimension is Associative the dimension text will appear highlighted.

— 9.815 — Before

You may add text in front or behind the dimension text and it will remain Associative. Be careful not to disturb the dimension value text.

— Max 9.815 — After

Non Associative or Exploded Dimension

If the dimension value has been changed or exploded it will appear with a gray background and is not Associative.

— 9.815 Max —

4. Make the change.
5. Select the **OK** button.

EDITING THE DIMENSION POSITION

Grips are great tools for repositioning dimensions.

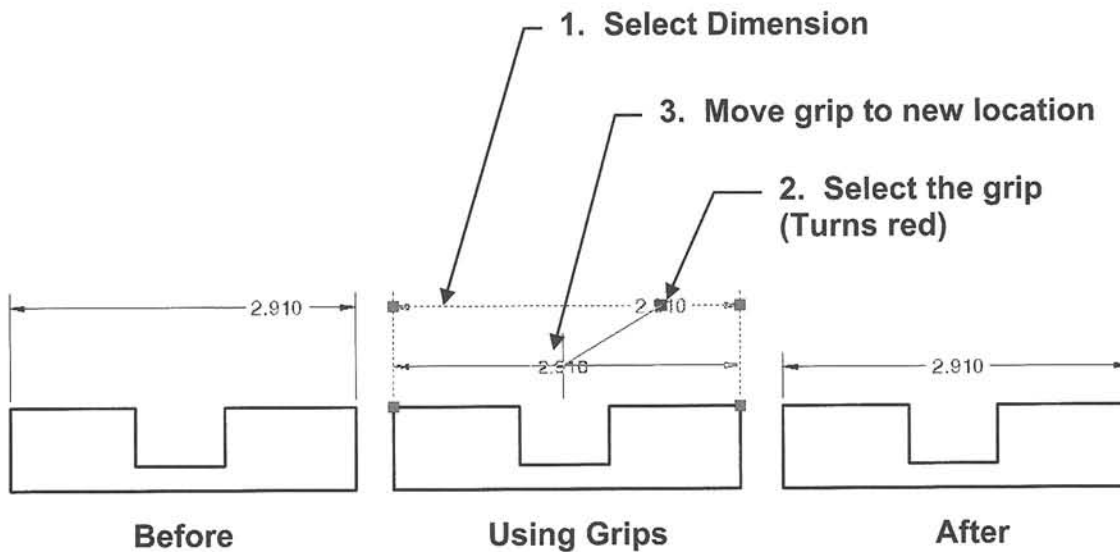
Grips are small, solid-filled squares that are displayed at strategic points on objects. You can drag these grips to stretch, move, rotate, scale, or mirror objects quickly.

Grips may be turned off by typing "grips" <enter> then 0 <enter> .

HOW TO USE GRIPS

1. Select the object (no command can be in use while using grips)
2. Select one of the **blue** grips. It will turn to "**red**". This indicates that grip is "**hot**". The "**Hot**" grip is the **basepoint**.
3. Move the hot grip to the new location.
4. After editing you must press the **ESC** key to de-activate the grips.

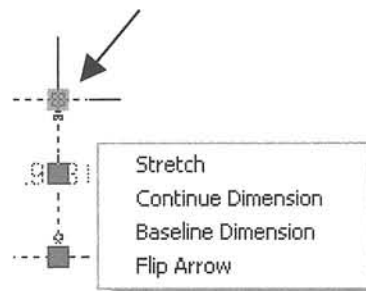
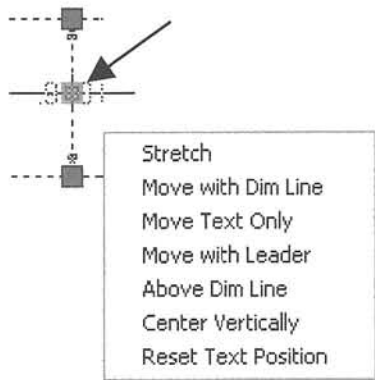
The following is an example of how to use grips to quickly reposition dimensions.



EDITING THE DIMENSION

ADDITIONAL EDITING OPTIONS USING THE SHORTCUT MENU

1. Select the dimension that you want to change.
2. Place the cursor on one of the grips shown below. (Do not press mouse button)
3. Select an option from the short cut menu that appears.

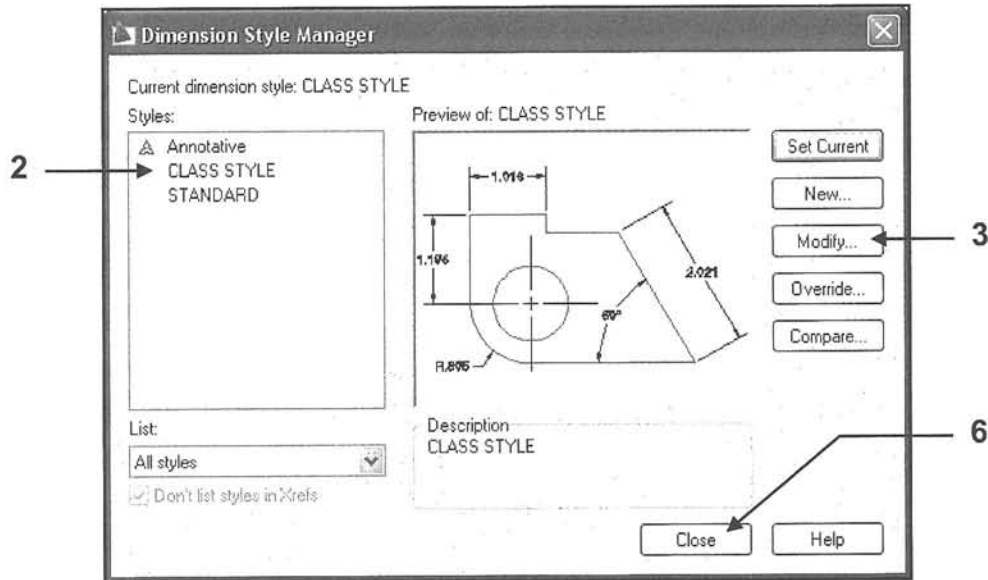


MODIFY AN ENTIRE DIMENSION STYLE

After you have created a Dimension Style, you may find that you have changed your mind about some of the settings. You can easily change the entire Style by using the “Modify” button in the Dimension style Manager dialog box. This will not only change the Style for future use, but it will also update dimensions already in the drawing.

Note: if you do not want to update the dimensions already in the drawing, but want to make a change to a new dimension, refer to Override, page 17-6

1. Select the Dimension Style Manager. (Refer to page 16-8)
2. Select the Dimension Style that you wish to modify.



3. Select the **Modify** button from the Dimension Style Manager dialog box.
4. Make the desired changes to the settings.
5. Select the **OK** button.
6. Select the **Close** button.

Now look at your drawing. Have your dimensions updated?

Note:

The method above will not change dimensions that have previously been modified or exploded.

Note: If some of the dimensions have not changed:

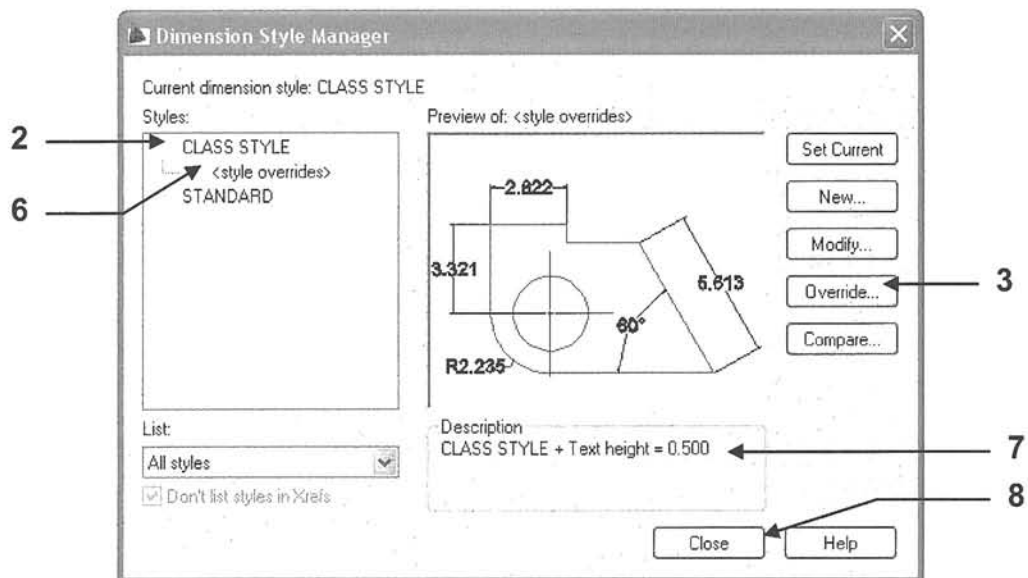
1. Type: -Dimstyle <enter> (notice the (-)dash in front of “dimstyle”)
2. Type: A <enter>
3. Select dimensions to update and then <enter>
(Sometimes you have to give them a little nudge.)

OVERRIDE A DIMENSION STYLE

A dimension Override is a **temporary** change to the dimension settings. An override **will not affect existing dimensions**. It will **only** affect **new dimensions**. Use this option when you want a **new** dimension just a little bit different but you don't want to create a whole new dimension style and you don't want the existing dimensions to change either.

For example, if you want the new dimension to have a text height of .500 but you want the existing text to remain at .125 ht.

1. Select the **Dimension Style Manager**. (Refer to page 16-8)
2. Select the **"Style"** you want to override. (Such as: Class Style)
3. Select the **Override** button.
4. Make the desired changes to the settings. (Such as: Text ht = .500)
5. Select the **OK** button.
6. Confirm the Override
Look at the List of styles.
Under the Style name, a sub heading of **<style overrides>** should be displayed.
The description box should display the style name and the override settings.
7. The description box should display the style name and the override settings.
8. Select the **Close** button.



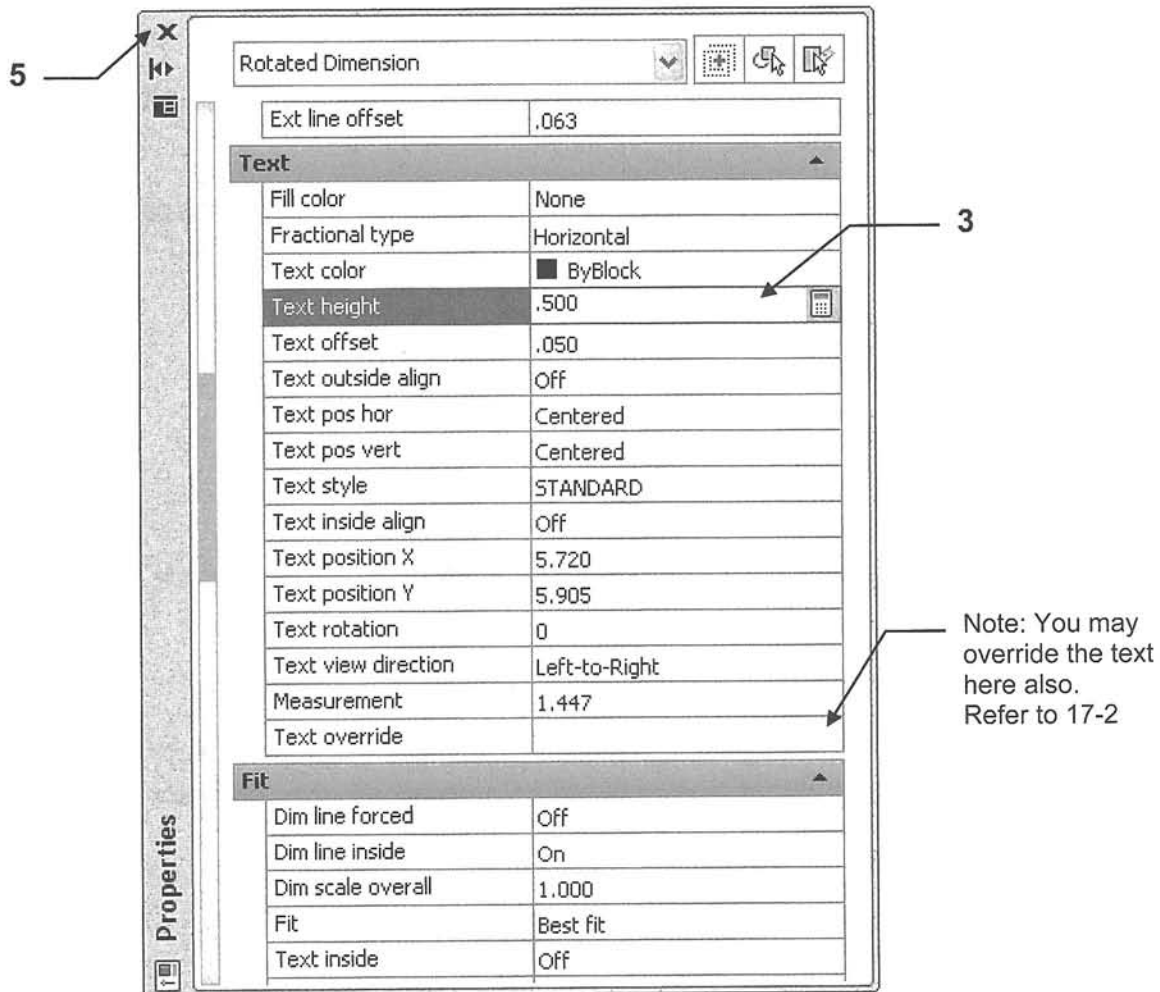
When you want to return to style **Class Style**, select **Class Style** from the styles list then select the **Set Current** button. Each time you select a different style, you must select the **Set Current** button to activate it.

EDIT AN INDIVIDUAL EXISTING DIMENSION

Sometimes you would like to modify the settings of an **individual existing** dimension. This can be achieved using the **Properties palette**.

1. Open the **Properties Palette**. (Refer to page 12-4)
2. Select the dimension to change.
3. Select and change the desired settings.

Example: Change the dimension text height to .500.



4. Press <enter> . (The dimension should have changed)
5. Close the **Properties Palette**.
6. Press the <esc> key to de-activate the grips.

Note: The dimension will remain Associative.

DIMENSION BREAKS

Occasionally extension lines overlap another extension line or even an object. If you do not like this you may use the **Dimbreak** command to break the intersecting lines. **Automatic** (described below) or **Manual** (described on page 17-9) method may be used. You may use the **Remove** (described on page 17-10) option to remove the break.

AUTOMATIC DIMENSION BREAKS

To create an automatically placed dimension break, you select a dimension and then use the Auto option of the DIMBREAK command.

Automatic dimension breaks are updated any time the dimension or intersecting objects are modified.

You control the size of automatically placed dimension breaks on the Symbols and Arrows tab of the Dimension Style dialog box.

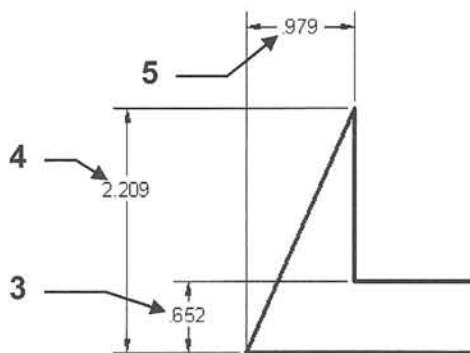
The specified size is affected by the dimension break size, dimension scale, and current annotation scale for the current viewport. (Annotation discussed in Lesson 27)

1. Select the Dimbreak command using one of the following:

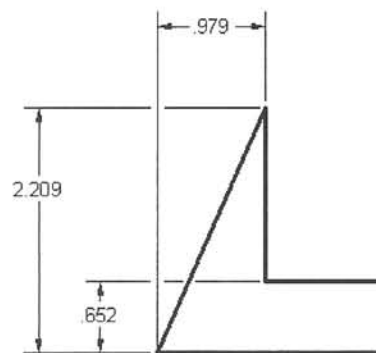
Ribbon = Annotate tab / Dimension panel / 
or
Keyboard = Dimbreak <enter>

Command: `_Dimbreak`

2. Select dimension to add / remove break or [Multiple]: **type M <enter>**
3. Select dimensions: **select dimension**
4. Select dimensions: **select another dimension**
5. Select dimensions: **select another dimension or <enter> to stop selecting**
6. Select object to break dimension or [Auto / Remove] <Auto>: **<enter>**



Before Dimbreak



After Dimbreak

DIMENSION BREAK....continued

MANUAL DIMENSION BREAK

You can place a dimension break by picking two points on the dimension, extension, or leader line to determine the size and placement of the break.

Dimension breaks that are added manually by picking two points are not automatically updated if the dimension or intersecting object is modified. So if a dimension with a manually added dimension break is moved or the intersecting object is modified, you might have to restore the dimension and then add the dimension break again.

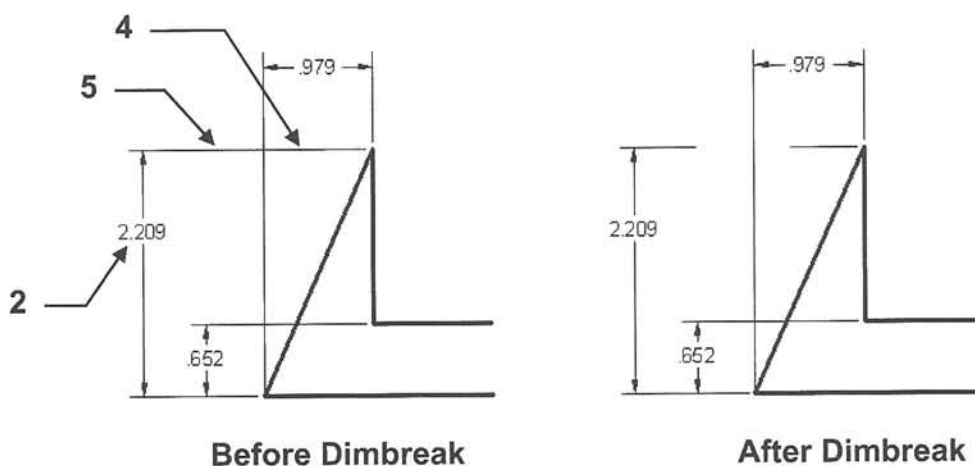
The size of a dimension break that is created by picking two points is not affected by the current dimension scale or annotation scale value for the current viewport.
(You will learn Annotation in Lesson 27)

1. Select the Dimbreak command using one of the following:

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

Command: `_Dimbreak`

2. Select dimension to add / remove break or [Multiple]: **select the dimension**
3. Select object to break dimension or [Auto/Manual/Remove] <Auto>: **type M <enter>**
4. Specify first break point: **select the first break point location** (Osnap should be off)
5. Specify second break point: **select the second break point location**




The following objects can be used as cutting edges when adding a dimension break:
Dimension, Leader, Line, Circle, Arc, Spline, Ellipse, Polyline, Text, and Multiline text.

DIMENSION BREAK....continued

REMOVE THE BREAK

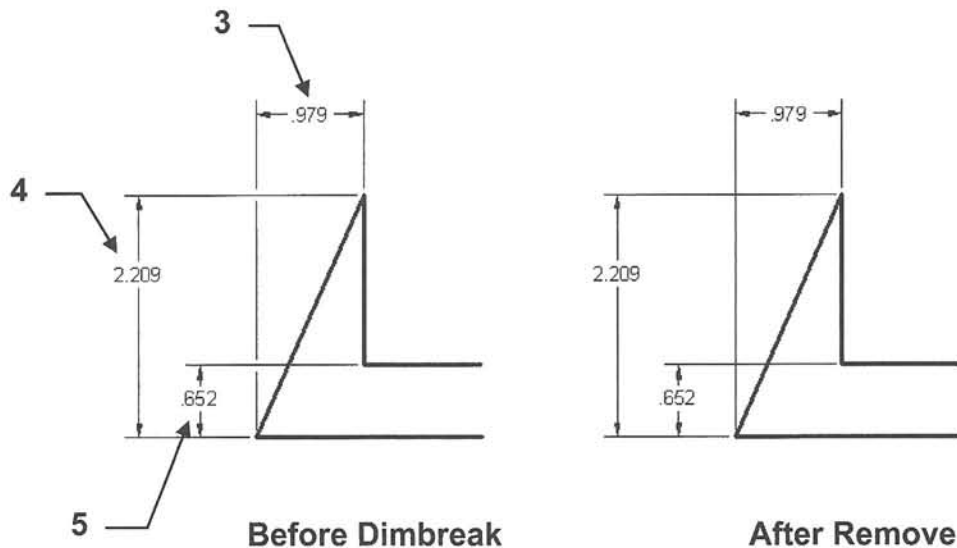
Removing the break is easy using the Remove option.

1. Select the Dimbreak command using one of the following:

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

Command: `_DIMBREAK`

2. Select dimension to add / remove break or [Multiple]: **type M <enter>**
3. Select dimensions: **select a dimension**
4. Select dimensions: **select a dimension**
5. Select dimensions: **select another dimension or <enter> to stop selecting**
6. Select object to break dimension or [Auto/Remove] <Auto>: **type R <enter>**



JOG A DIMENSION LINE

Jog lines can be added to linear dimensions. Jog lines are used to represent a dimension value that does not display the actual measurement.

Before you add a jog, the Jog angle and the height factor of the jog should be set in the Symbols & Arrows tab within the Dimension Style.

The height is calculated as a factor of the Text ht.


For example:

if the text height was .250 and the jog height factor was 1.500, the jog would be .375

Formula: (.250 ht. X 1.500 jog ht. factor= .375).

Radius jog dimension	
Jog angle:	<input type="text" value="45"/>
Linear jog dimension	
Jog height factor:	<input type="text" value="1.500"/> * Text height

1. Select the Jogged Linear command

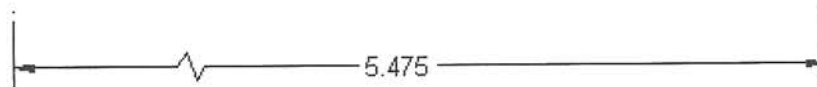
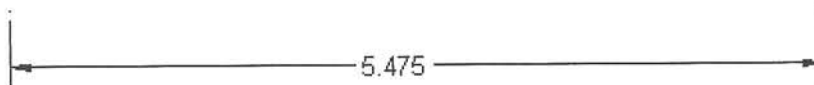
Ribbon = Annotate tab / Dimension Panel / 

or

Keyboard = Dimjogline <enter>

Command: `_DIMJOGLINE`

2. Select dimension to add jog or [Remove]: **Select a dimension**
3. Specify jog location (or press ENTER): **Press <enter>**
4. After you have added the jog you can re-position it by using grips and adjust the height of the jog symbol using the Properties palette.



REMOVE A JOG

1. Select the Jogged Linear command
Command: `_DIMJOGLINE`
2. Select dimension to add jog or [Remove]: **type R <enter>**
3. Select jog to remove: **select the dimension**

ADJUST DISTANCE BETWEEN DIMENSIONS

The Adjust Space command allows you to adjust the distance between existing parallel linear and angular dimensions, so they are equally spaced. You may also align the dimensions to create a string.

1. Select the Dimension Space command using one of the following:

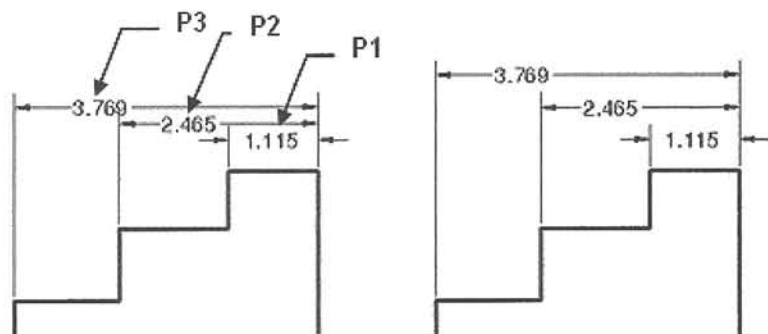
Ribbon = Annotate tab / Dimension panel / 
or
Keyboard = Dimspace <enter>

Command: `_DIMSPACE`

2. Select base dimension: **Select the dimension that you want to use as the base dimension when equally spacing dimensions. (P1)**
3. Select dimensions to space: **select the next dimension to be spaced. (P2)**
4. Select dimensions to space: **select the next dimension to be spaced. (P3)**
5. Select dimensions to space: **continue selecting or press <enter> to stop**
6. Enter value or [Auto] <Auto>: **enter a value or press <enter> for auto**

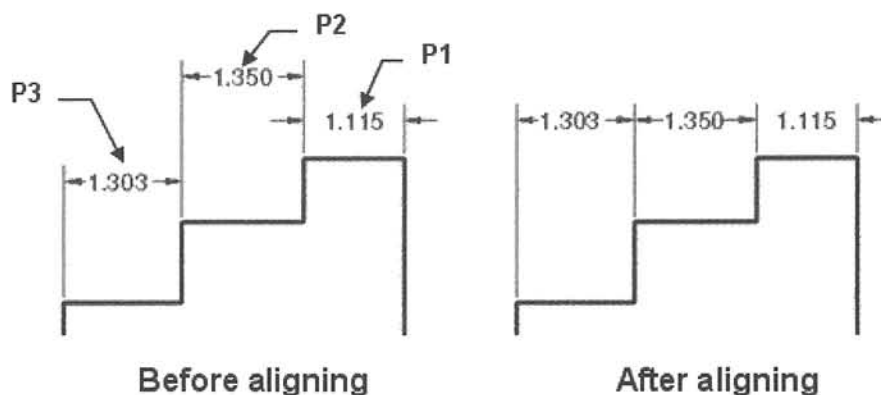
Auto creates a spacing value of twice the height of the dimension text.

For example:
If the dimension text is 1/8", the spacing will be 1/4".



Aligning dimensions

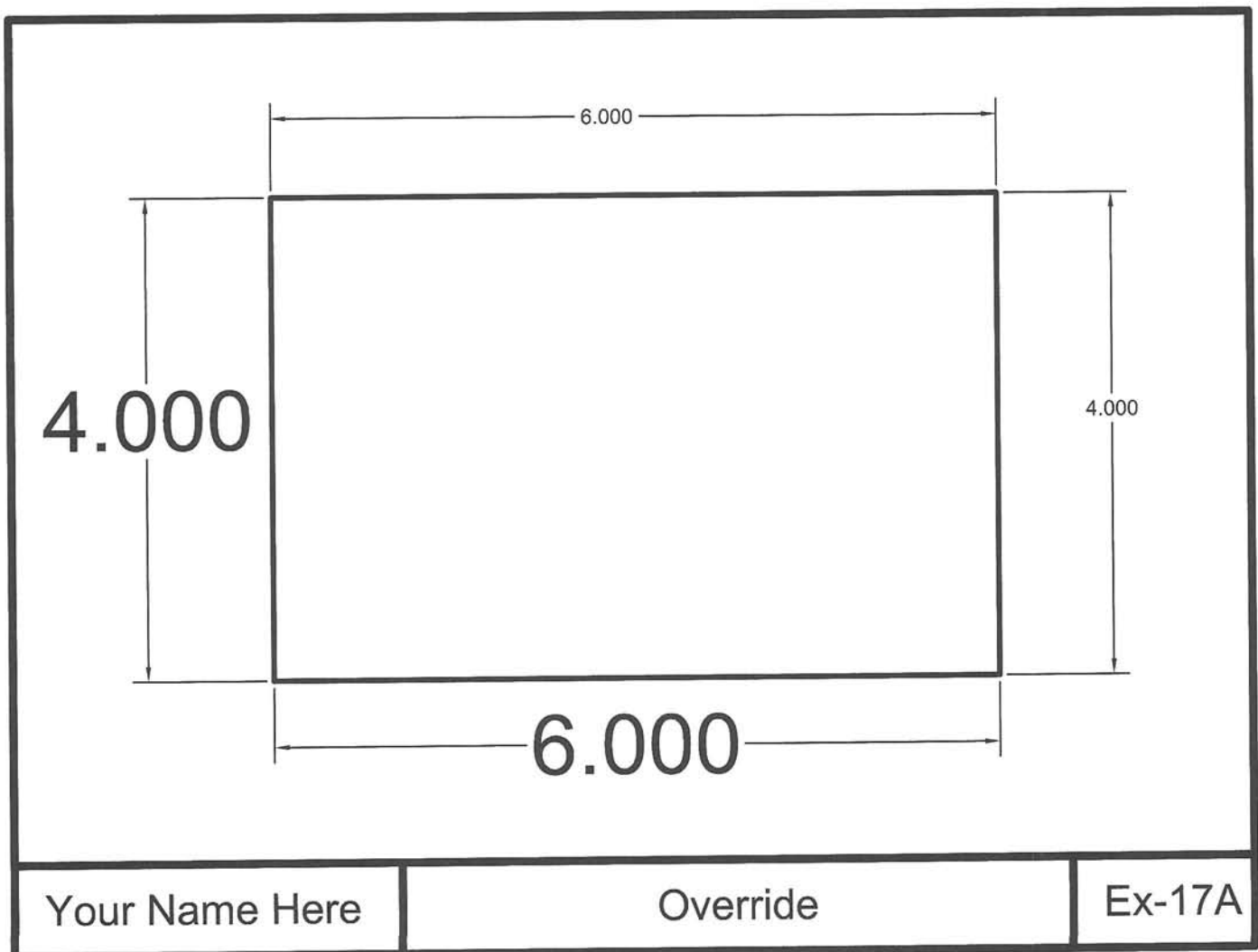
Follow the steps shown above but when asked for the value enter "0" <enter>.



EXERCISE 17A

INSTRUCTIONS:

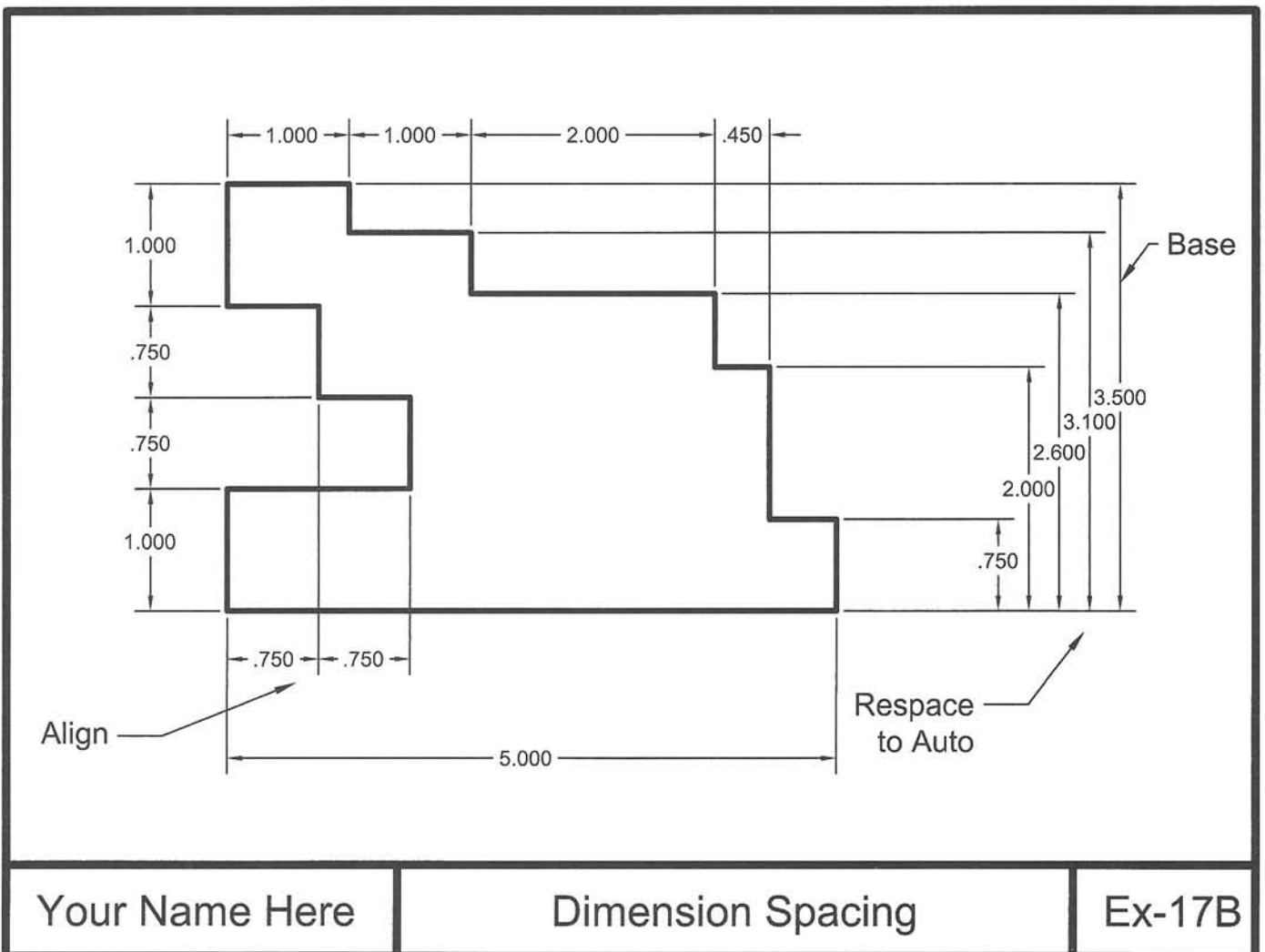
1. Start a **New** file using **Border A-2013.dwt**
2. Draw the 6" x 4" Rectangle shown below. Use layer Object line.
3. **Upper & Right Dimension:** Use dimension style Class Style. Use Layer Dimension
4. **Lower & Left Dimension:** Use Override. Change the text height setting to .500.
If the upper & right dimension changed also, you did not use "Override". Try again.
5. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
6. Save as **EX17A**
7. Plot using Page Setup **Class Model A**



EXERCISE 17B

INSTRUCTIONS:

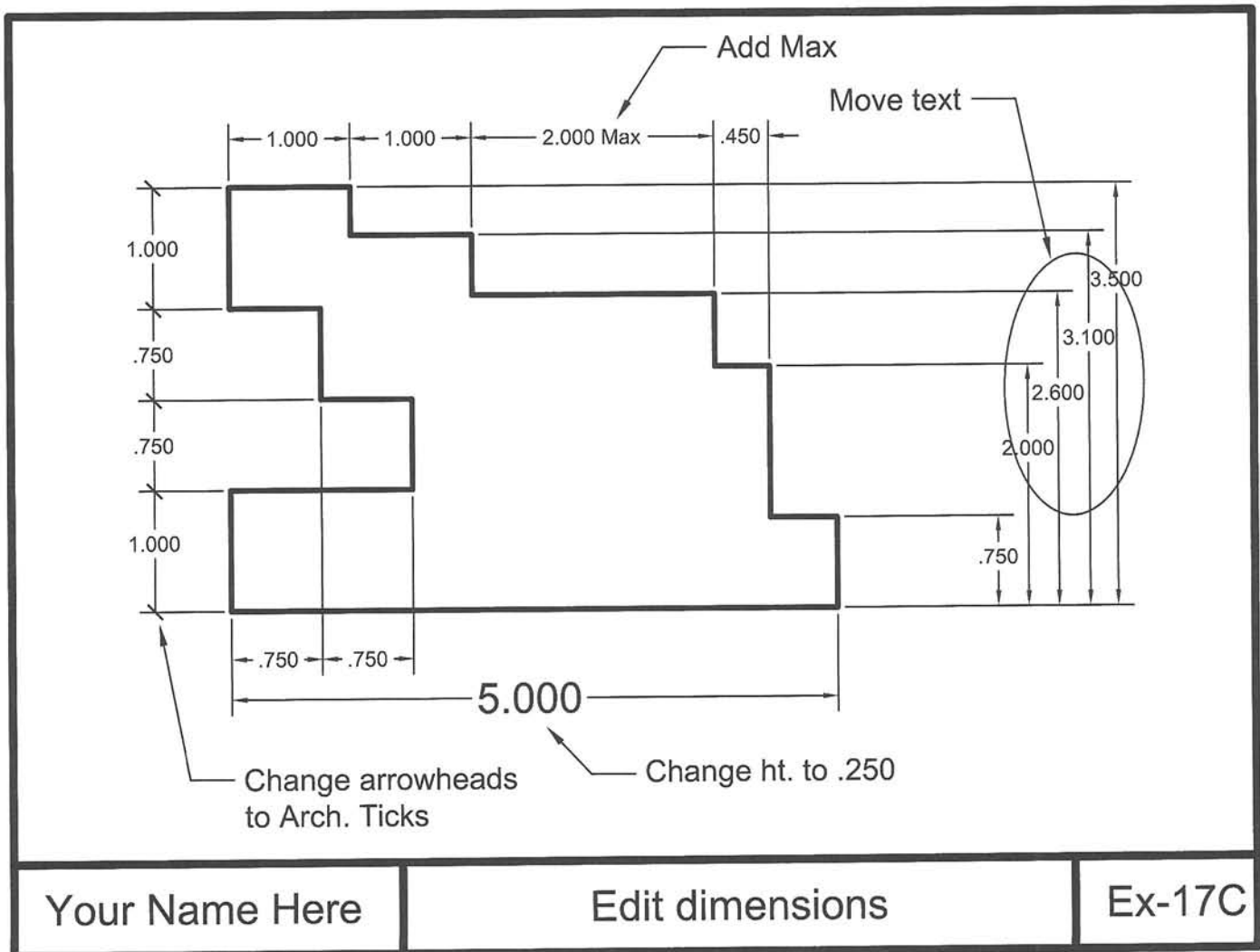
1. Open **EX16B**
2. Re-space the baseline dimensions on the right side. Use Auto for spacing.
3. Align the (2) .750 dimensions.
4. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
5. Save as **EX17B**
6. Plot using Page Setup **Class Model A**



EXERCISE 17C

INSTRUCTIONS:

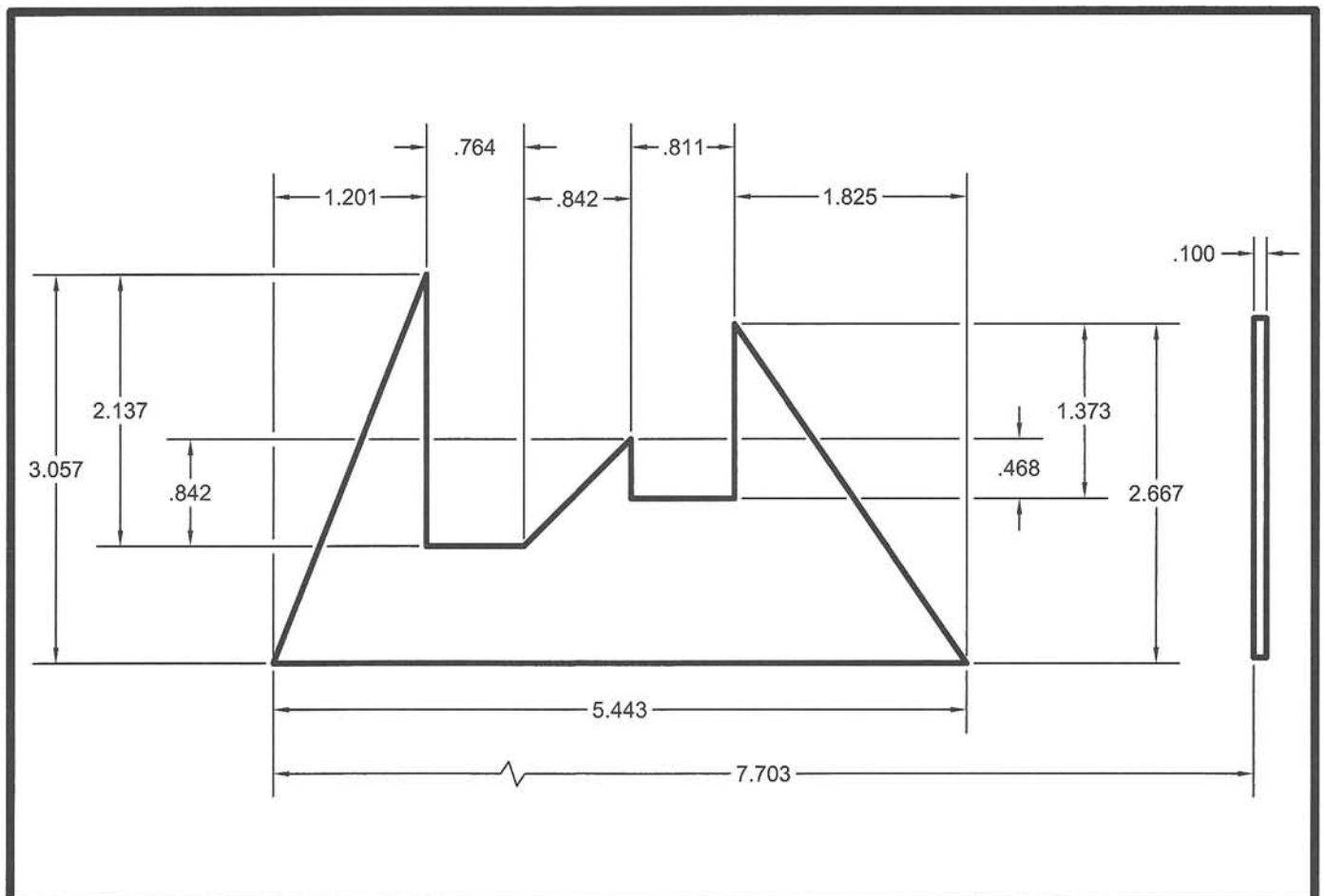
1. Open **EX17B**
2. Make the changes shown below. Use Grips and the Properties Palette.
3. Notice: Not all dimensions change, so you can't make changes to the Dim. Style.
4. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
5. Save as **EX17C**
6. Plot using Page Setup **Class Model A**



EXERCISE 17D

INSTRUCTIONS:

1. Start a **New** file using **Border A-2013.dwt**
2. Draw the objects shown below.
3. Dimension as shown. Be very careful because there is just enough drawing area.
4. Use Dimension Break to break the extension lines as shown.
5. Use Dimension Jog to create a jog in the lower dimension.
6. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
7. Save as **EX17D**
8. Plot using Page Setup **Class Model A**



Your Name Here

Jogging and Breaking

Ex-17D