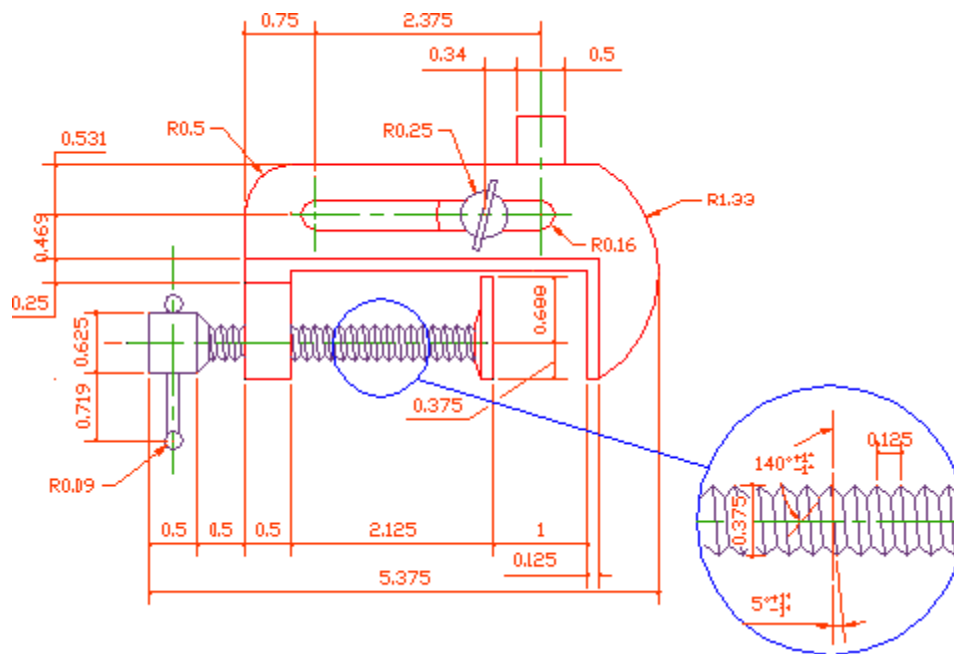


AutoCAD 2011: One Step at a Time
Lesson 17: Customizing Dimensions and Using Dimensional Constraints

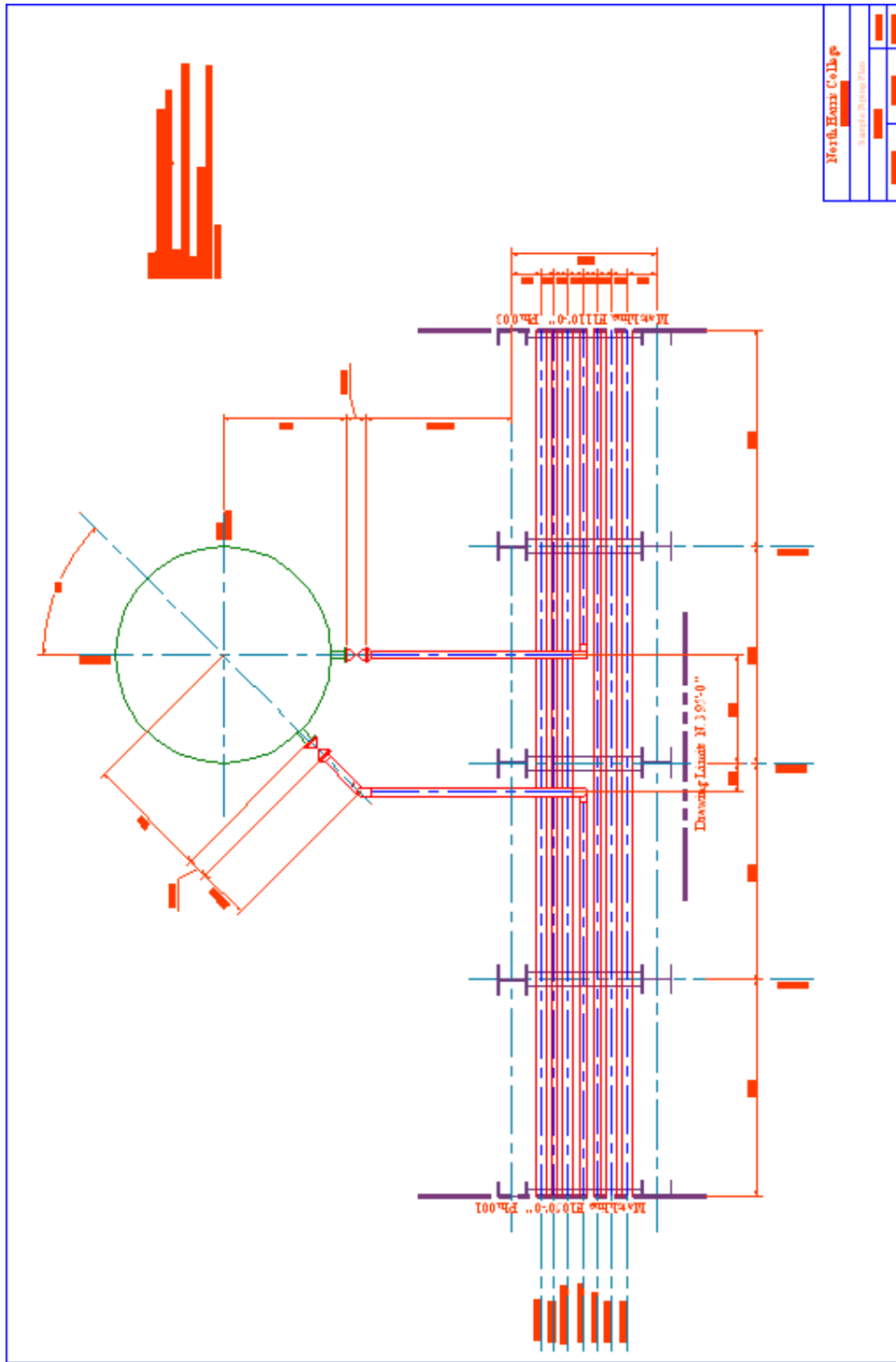
11R17

Exercises

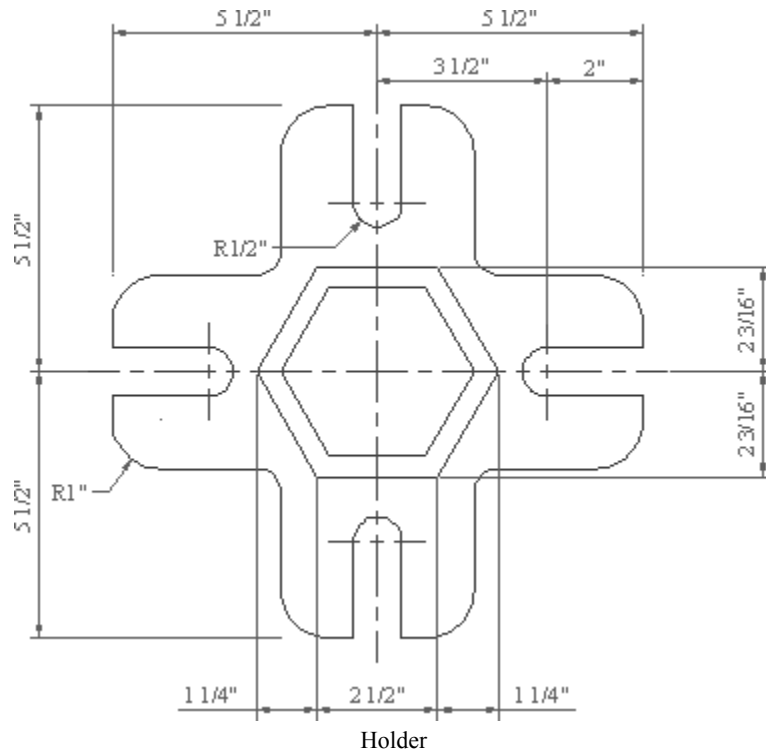
1. Open the *drillguide* file in the C:\Steps\Lesson17 folder. Create an appropriate dimension style to dimension the image as indicated below.
 - 1.1. Use **small dot** arrowheads but no center marks.
 - 1.2. Use an overall **scale** of 1.
 - 1.3. Use decimal units accurate to three decimal places (suppress trailing zeros).
 - 1.4. Use standard 1/8" text.
 - 1.5. Allow a tolerance deviation of 1° on all angles, and a precision of zero decimal places.
 - 1.6. All dimensions should be above the dimension line except radii which should be centered on the leader.



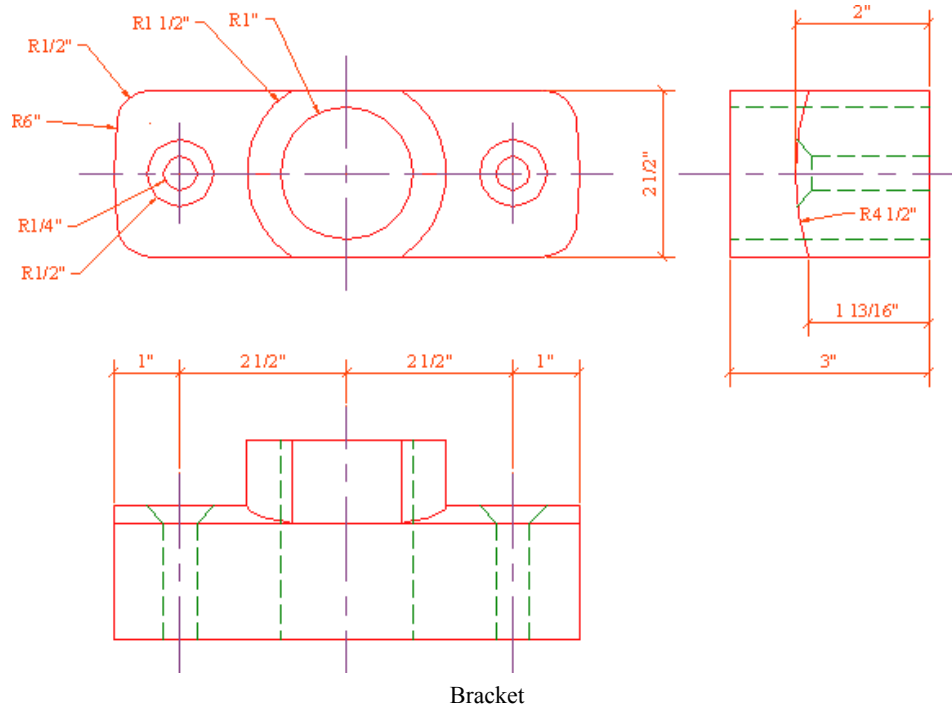
- 3.4. Use the **Times** text style and a 1/8" text height.
- 3.5. Center the dimension text above the dimension line.
- 3.6. Use **Closed Filled** arrowheads.



4. Open the *holder 17* file in the C:\Steps\Lesson17 folder.
 - 4.1. Dimension the drawing as shown. (Hint: The dimension text size is 3/16" and the arrow size is 1/8".)
 - 4.2. Use dimensional constraints to change the overall dimensions of the holder proportionally when you change the size of the polygon.
 - 4.3. Save the drawing as *MyHolder17* in the C:\Steps\Lesson17 folder.



5. Open the *bracket 17* file in the C:\Steps\Lesson17 folder.
 - 5.1. Dimension the drawing as shown below (Hint: The dimension text size is 3/16" and the arrow heads are 1/8" obliques.)
 - 5.2. Use dimensional constraints to control the overall size of the bracket with the 1" radial dimension.
 - 5.3. Use dimensional constraints to change the overall size of the object with a user-defined constraint. (For example, create Size1, Size2, and Size3 user-defined constraints that change the overall length and width of the bracket by factors of 1, 2, and 3.)
 - 5.4. Save drawing as *MyBracket17* in the C:\Steps\Lesson17 folder.



Write your answers on a separate sheet of paper.

1. Another name for a dimension variable is _____.
2. Access the Dimension Styles Manager with the _____ command.
3. (T or F) The Dimension Style Manager is not the only way to create dimension styles, but it is the easiest.
4. Overall dimension settings are called _____ settings.

List the six children available to an overall dimension style.

5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. The user can set the size of arrowheads and extension line origin offset on the _____ tab of the Dimension Style Manager.
12. The overall scale of dimensions should be set using the _____ for the drawing.
13. Dimension text, which is not horizontal, will be placed _____ to the dimension line.
14. _____ determines where along the dimension line AutoCAD will place the dimension text.
15. (T or F) Once units have been set for the drawing (using the Units command), it isn't necessary to set up units for dimensions.
16. (T or F) Careful consideration should be given to the size of a working copy of a drawing before setting dimensioning to use stacked fractions.

To dimension various details on a drawing drawn at various scales, set the scale of the detail in relation to the rest of the drawing (for example, 2x or .5x) in the (17) frame of the (18) tab of the Dimension Style Manager.

17. _____
18. _____
19. (T or F) The only text style available in dimensioning is AutoCAD's standard style.
20. Use DDim or the _____ command to rid a drawing of unwanted dimension styles.

To read the dimension variables used to create a particular dimension, use the (21) option of the (22) command.

21. _____
22. _____

23. (T or F) You can put text and/or dimensions in one location for one annotative scale and in another location for another scale.

Customize leaders with the (24) manager accessed with the (25) command.

24.

25.

26. Select to create a splined leader on the _____ tab of the Multileader Style dialog box.

Select to create bubbled leaders from the (27) control box on the (28) tab of the Multileader Style dialog box.

27.

28.

29. You shouldn't use _____ dimensional constraints as actual dimensional tools.

30. Use _____ dimensional constraints if you wish to avoid duplicating dimensions for plotting.

Control the display of dynamic dimensional constraints with the (31) system variable or the (32) button on the Dimensional panel.

33. Create a new user parameter in the _____ Manager.

34. (T or F) It's possible to set up dimensional constraints so that changing a single dimensional value can change all the dimensional values of a drawing.

Answers

1. Dimvar
2. DDim
3. T
4. Parent
5. Linear
6. Radial
7. Diameter
8. Ordinal
9. Angular
10. Leaders and Tolerances
11. Symbols & Arrows
12. Annotative Scale
13. Parallel
14. Horizontal Justification (Text Placement)
15. F
16. T
17. Measurement Scale
18. Primary Units
19. F
20. Purge
21. Variables
22. -Dimstyle
23. T
24. Multileader Style
25. MLeaderStyle
26. Leader Format
27. Multileader type
28. Content
29. Dynamic
30. Annotational
31. DynConstraintMode
32. Show Dynamic Constraints
33. Parameters
34. T