

AutoCAD 2011: One Step at a Time *Lesson 9: Some More Editing Tools ... & Grips!*

11R9

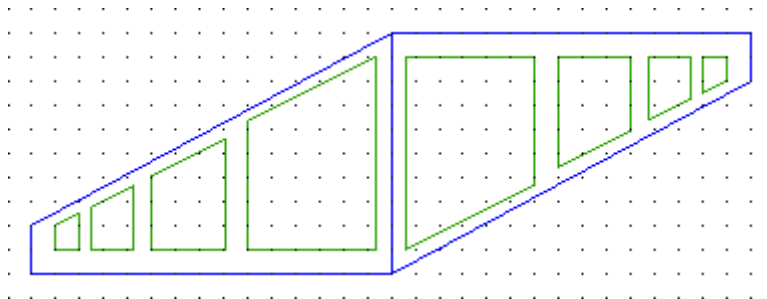
Exercises

1. Create a drawing template with the following parameters:

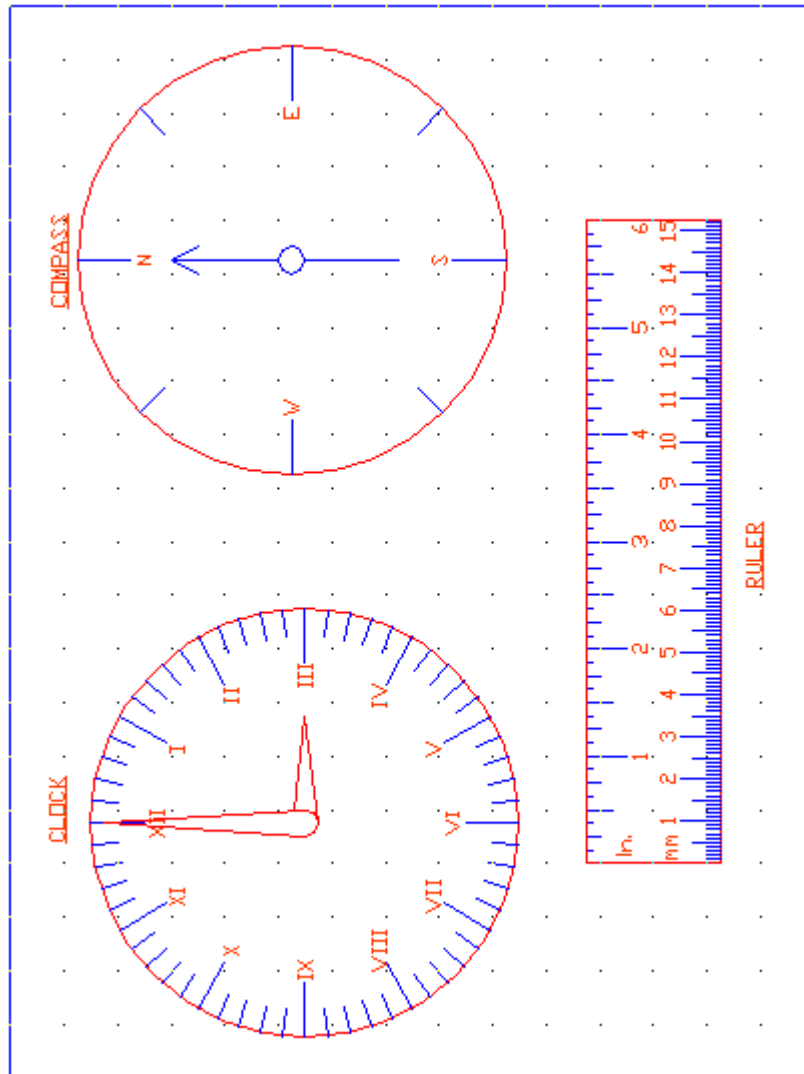
- 1.1. Lower left limits: 0,0
- 1.2. Upper right limits: 17,11
- 1.3. Grid: $\frac{1}{2}$
- 1.4. Snap: $\frac{1}{4}$
- 1.5. Layers: At right
- 1.6. Save the template as *BwLay.dwt* in the C:\Steps\Lesson09 folder.

LAYER	COLOR	LINETYPE
Obj	red	continuous
Cl	blue	center2
Hidden	212	hidden2
Text	12	continuous
Dim	blue	continuous













2. Start a new drawing using the *BwLay.dwt* template. (You created this in Exercise #1.)
 - 2.1. Create the drawing below. You're allowed to draw one box and the outline of the wall. You may use the following commands to help: **Copy**, **Rotate**, **Scale** and **Stretch**. The size of each window is 1.75x the size of the smaller window next to it. Feel free to add layers if you think it necessary.
 - 2.2. Create constraints so that when you move either of the horizontal lines up or down, the "windows" stretch accordingly.



3. Open the *Ruler* drawing in the C:\Steps\Lesson09 folder. Create the following drawing. Feel free to add layers if you think it necessary.
 - 3.1. The circles have a 2" radius. The longer lines in the circles are $\frac{1}{2}$ ", and the shorter lines are $\frac{1}{4}$ ".
 - 3.2. The text in the circles and on the ruler is $\frac{1}{8}$ " high.
 - 3.3. The gradient lines on the ruler are: $\frac{3}{8}$ ", $\frac{1}{4}$ ", $\frac{1}{8}$ " and $\frac{1}{16}$ ".
 - 3.4. Constrain the clock and compass hands to the center of their respective faces.



- Now create the following drawings. The Sample Electrical Symbols uses the same border, sheet size, and grid as the previous detail sheets (Lessons 4 & 5). The other drawings will fit on an 11"x17" sheet of paper. Use constraints where possible!

			
<u>Electrolytic Capacitor</u>	<u>Air-Core Inductor</u>	<u>Terminal</u>	<u>Feed-Thru Capacitor</u>
			
<u>Coaxial Cable</u>	<u>Switch</u>	<u>Air-Core Transformer</u>	<u>Transistor</u>
			
<u>Logic Circuit</u>	<u>Incandescent Lamp</u>	<u>Coaxial Connector</u>	<u>Multi-Movable Connector</u>
North Harris College			
<u>Sample Electrical Symbols</u>			
<u>Drawn By:</u> [username]	<u>Checked By:</u> B. Franklin	<u>Page 16</u> of <u>20</u>	
<u>Date:</u> [date]	<u>Scale:</u> NTC	<u>Approval:</u> FTR	<u>File:</u> 2 of 2

Use either the (1) or the (2) command to make an object longer.

- 1.
- 2.
3. Objects to be stretched must be selected using a _____.




Use the (4) option of the (5) command to make a line half as long as it is.

- 4.
- 5.

To make an existing line exactly 5" long, use the (6) option of the (7) command.

- 6.
- 7.
8. To lengthen more than one object at a time, use the _____ command.
9. Use the _____ command to adjust the angle of an object.
10. Use the _____ command to adjust the size of an object.

Identify these buttons and the hotkeys that are associated with their commands.

Button			
Command	11.	13.	15.
Hotkey	12.	14.	16.

17. Use the _____ command to create a revision cloud.
 18. (T or F) You can create a revision cloud with a calligraphy style.
 19. (T or F) The revision cloud command includes options for Arc Length, selecting an Object to convert to a cloud, and insertion of a Revision Triangle.
 20. Turn grips off by giving the grips system variable a value of _____.
 21. _____ are control points located on all objects, blocks, and groups.
- List the five modification commands available using grips.
22. _____
 23. _____
 24. _____
 25. _____
 26. _____
 27. The _____ command is also available as an option for each of the primary grip commands.
 28. To clear grips, hit the _____ key.

29. To remove an object from a grips selection set, hold down the _____ key while selecting it.
30. The user toggles through the available grips commands by hitting the _____.
31. (T or F) There is no way to offset objects using grips.
32. Any time you've selected a grip, you can _____ in the drawing area to access a cursor menu that provides the same options as the command line.
33. (T or F) Using the Move Grips command, all the objects with active grips will move.
34. (T or F) Grips are control points indicated by tiny blue squares on all objects, blocks, and groups.
35. (T or F) Arcs will have a center grip like circles.
36. (T or F) Circles have grips at all four quadrants (at angles of 0 degrees, 90 degrees, 180 degrees, and 270 degrees) and at the center.
37. (T or F) A setting of 1 at the Grips command will activate grips.
38. (T or F) Polylines have grips only at their endpoints.
39. (T or F) Grips cannot be removed from objects.

Answers

- | | |
|--|-----------------|
| 1. Stretch | 20. 0 |
| 2. Lengthen | 21. Grips |
| 3. Crossing window or crossing-
polygon | 22. Stretch |
| 4. Percent | 23. Move |
| 5. Lengthen | 24. Rotate |
| 6. Total | 25. Scale |
| 7. Lengthen | 26. Mirror |
| 8. Stretch | 27. Copy |
| 9. Rotate | 28. ESC |
| 10. Scale | 29. SHIFT |
| 11. Scale | 30. Spacebar |
| 12. Sc | 31. F |
| 13. Stretch | 32. Right-click |
| 14. S | 33. T |
| 15. Rotate | 34. T |
| 16. Ro | 35. T |
| 17. Revcloud | 36. T |
| 18. T | 37. T |
| 19. F | 38. F |
| | 39. T |