

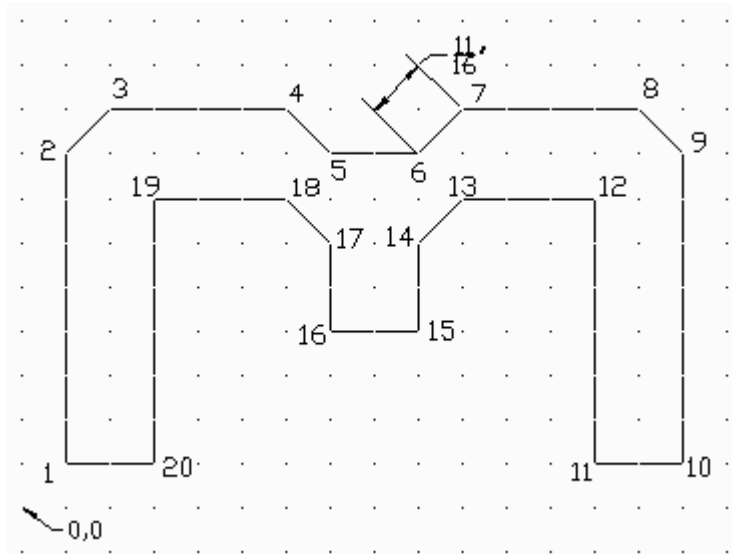
AutoCAD 2009: One Step at a Time
Lesson 2: Drawing Basics – Lines, Circles, and Coordinates

09R2	Exercises
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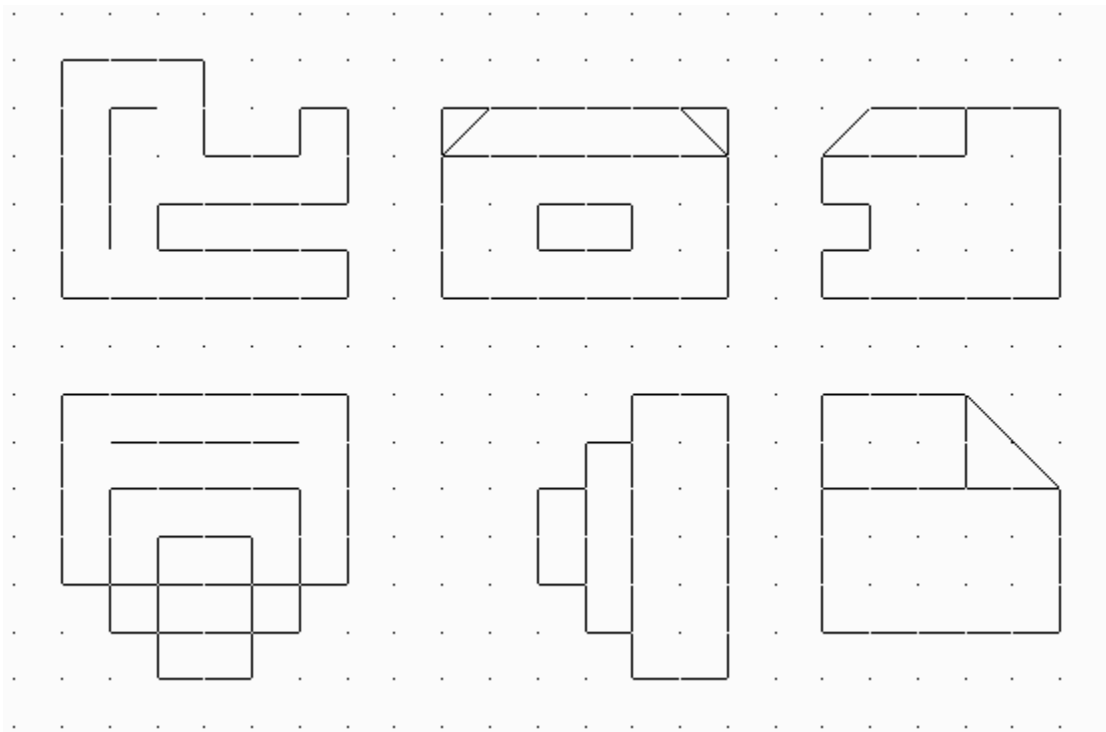
Refer to Exercise #1 (next page) for the following table.

<u>POINT</u>	<u>ABSOLUTE</u> (X,Y)	<u>RELATIVE</u> (@X,Y)	<u>POLAR</u> (@DIST<ANGLE)
1	1,1	1,1	1,1
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
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Back to 1			

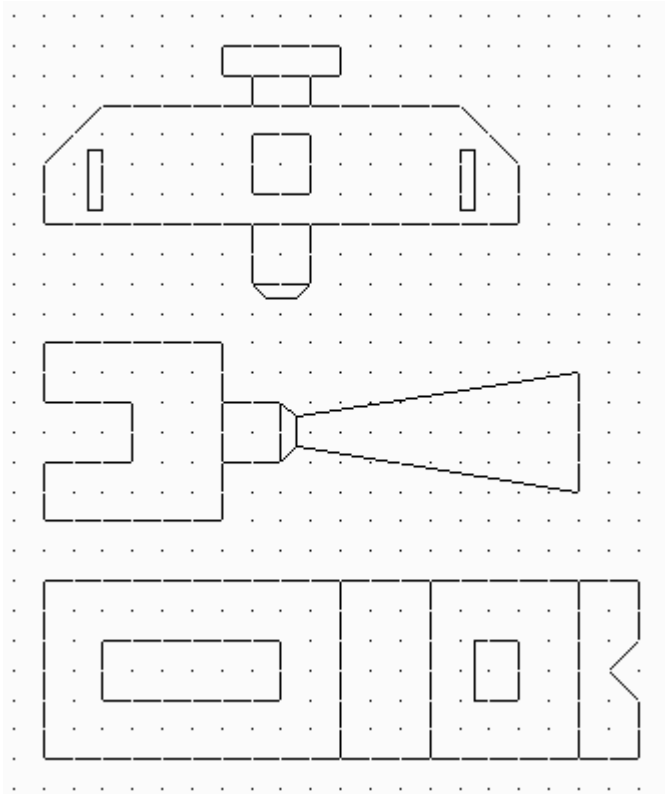
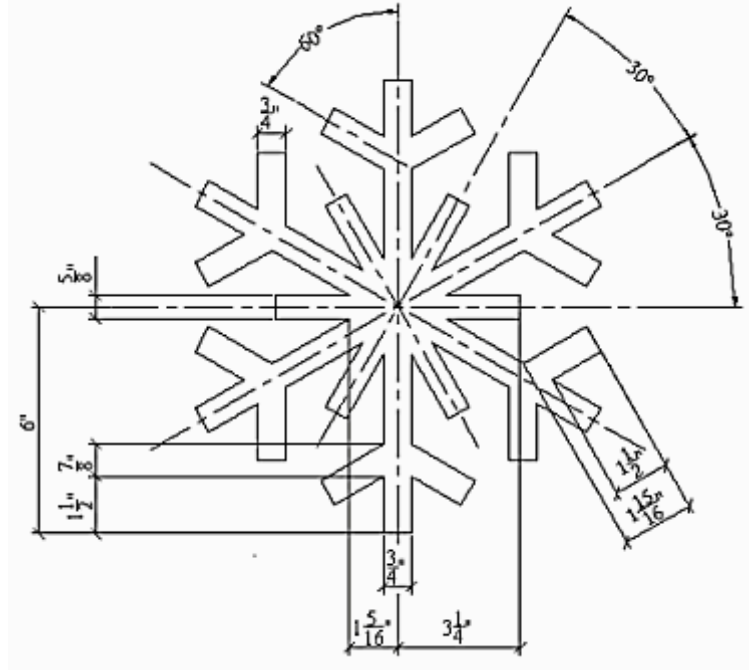
- Using what you've learned, fill in the blanks (in the table on the previous page) with the command entries needed to draw the structure at right. Use each of the Cartesian coordinate methods – absolute, relative, and polar. Then draw the object using each of the methods and the dynamic methods we discussed. (Grid marks are $\frac{1}{2}$ " apart.) Save the drawing as *MyM* in the C:\Steps\Lesson02 folder.



- Create a drawing(s) using either templates or wizards. Draw each of the figures shown below. (Grid marks are $\frac{1}{2}$ " apart.) Save the drawing as *MyLines* in the C:\Steps\Lesson02 folder.



3. Create the snowflake using what you've learned. Don't try to draw the centerlines or the dimensions.



4. Now create the drawings at left. The grid is $\frac{1}{4}$ ".

Please write your answers on a separate sheet of paper.

1. Drafting is the placing of _____ on paper to represent objects.

All geometric shapes can be formed by the constructive use of what two objects?

2.

3.

What two entries can I use at the command or dynamic input prompt to begin to draw a line?

4.

5.

To erase my line, what two things can I enter at the command or dynamic input prompt?

6.

7.

8. To exit a command before it is finished, hit the _____ key.

9. To draw a line from the last selected point back to the first selected point, type _____.

10. A _____ is a multi-segmented line.

11. Hit _____ on the keyboard to repeat the last command.

12. The _____ option of the Rectangle command will cause the rectangle to have rounded corners.

13. How would you enter one-foot-six-and-one-half-inches in AutoCAD?

14. AutoCAD reads a keyboard spacebar entry as an _____.

Identify these buttons:



15 16 17 18 19

20. An implied window drawn from right to left is a (window, crossing window).

21. How many planes are in the Cartesian Coordinate System?

22. Name them.

23. The _____ axis runs vertically.

24. The _____ axis runs horizontally.

25. A point located at 3,2 is _____ spaces right of zero.

Name the three types of AutoCAD coordinates.

26.

27.

28.

Identify these methods of entering coordinates:

29. X,Y

30. @X,Y

31. @dist<Angle

32. (T or F) If an entity doesn't appear after typing regen, it is not part of the drawing.

List three ways to select a group of objects:

33.

34.

35.

36. (T or F) The U command will undo all procedures completed prior to the last save.

37. (T or F) When using the Redo command, a drafter can restore only the last procedure undone by the Undo or U command.

38. To erase one or a series of objects, the user will

- a. select the object or objects
- b. tell the Erase command how many objects to select
- c. confirm the end of selection by hitting enter.

39. (T or F) The Cartesian Coordinate System has an X and a Y axis.

40. A point on the Cartesian Coordinate system is found by which method?

- a. absolute (x, y)
- b. relative (@x,y)
- c. polar (@dist.<angle
- d. all three

41. The Polar entry method most closely resembles the _____ coordinate system.

42. Use the _____ key on your keyboard to move between dynamic entry boxes.

43. _____ is the hotkey for the Circle command.

44. The 2P option of the Circle command allows the user to draw a circle by identifying 2 points which define the circle's _____.

45. _____ identifies the size of the circle for the TTR option of the Circle command.

46. The options of the Circle command include:
- a. center point
 - b. tan tan radius
 - c. both a and b
47. (T or F) When using the Tan Tan Rad option of the Circle command, the user doesn't need to identify objects to which the circle will be tangent.
48. (T or F) The ribbon offers no access to the Rectangle command.

Answers:

- | | |
|---------------------|-------------------------|
| 1. Geometric Shapes | 25. 3 |
| 2. Lines | 26. Absolute |
| 3. Circles | 27. Relative |
| 4. Line | 28. Polar |
| 5. L | 29. Absolute |
| 6. Erase | 30. Relative |
| 7. E | 31. Polar |
| 8. ESC | 32. T |
| 9. C | 33. Selection Box |
| 10. Polyline | 34. Window |
| 11. Enter | 35. Crossing Window |
| 12. Fillet | 36. F |
| 13. 1'6-1/2 | 37. T |
| 14. Enter | 38. a and c are correct |
| 15. Line | 39. T |
| 16. Rectangle | 40. d is correct |
| 17. Undo | 41. Polar |
| 18. Redo | 42. TAB |
| 19. Erase | 43. C |
| 20. Crossing Window | 44. Diameter |
| 21. 3 | 45. R Or Radius |
| 22. X, Y, Z | 46. C |
| 23. Y | 47. T |
| 24. X | 48. F |