

**AutoCAD 2009: One Step at a Time**  
**Lesson 9: Editing 3D Solids**

**09R9-3D**

**Review Questions**

Please write your answers on a separate sheet of paper.

List the three categories of SolidEdit commands.

- 1.
- 2.
- 3.
4. The \_\_\_\_\_ category contains the bulk of SolidEdit's commands.

Use the (5) routine of the Face Category or the (6) command to change the location and taper angle of a face.

- 5.
- 6.

Use the (7) routine of the Face Category or the (8) command to relocate part of a solid that was improperly placed.

- 7.
- 8.

9. The user controls the direction of the Face Category's Offset by using \_\_\_\_\_.

10. Using a positive number in response to the offset distance prompt of the Offset routine will cause the (size of a slot, volume of the 3DSolid) to increase.

11. Use the \_\_\_\_\_ routine of the Face Category to change a straight hole to a cone-shaped hole.

Use the (12) routine of the Face Category or the (13) command to remove a hole from a 3DSolid.

- 12.
- 13.

When using the Copy routine of the Face Category to create copies of a face, the copies are (14). Use the (15) command to turn them into surfaces.

- 14.
- 15.

16. To change the color of a single edge of a 3DSolid, use the Color routine of the \_\_\_\_\_ Category.

Use the (17) routine of the (18) Category to create a new edge on a 3DSolid.

- 17.
- 18.

19. Consider the 3DSolids in Figs. a and b. On which would the Separate Solids routine of the Body Category work?

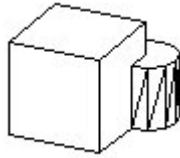


Figure "a"

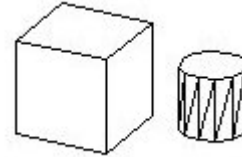


Figure "b"

20. Use the \_\_\_\_\_ option of the Body Category to remove unwanted or unused edges on a 3DSolid.

Identify the following buttons by function and category:



21.



22.



23.



24.



25.



26.



27.



28.



29.



30.



31.



32.



33.



34.

35. (T or F) When using the pull down menus to edit a 3DSolid, the user first goes to Modify, then to Solids Editing, then to the editing option.
36. (T or F) In the Extrude option of the SolidEdit command, it is not possible to remove a selected face from the selection set.
37. (T or F) To extrude a face on a 3DSolid, the user can use the Extrude option of the SolidEdit command or pick the Extrude Faces button on the ribbon's Solid Editing panel.
38. (T or F) When selecting faces to extrude with the SolidEdit command, you select an edge first. AutoCAD then highlights the two faces that form that edge and you must remove the one you do not want to extrude from the selection set.
39. (T or F) Within the Edge category of the SolidEdit command, L for coLor will change the color of the selected line, not a face of the 3DSolid.
40. (T or F) Using the SolidEdit command, it is possible to change the layer of a single line within a 3DSolid.
41. (T or F) Within the Edge category of the SolidEdit command, the user may copy, color, or remove an edge.
42. In the Edges category of the SolidEdit command, the user is concerned only with changing:
  - a) faces
  - b) segments
  - c) edges of a solid.

43. (T or F) The Imprint routine of the Body Category “imprints” an image of a selected object – arc, circle, line, etc. – onto a 3DSolid.
44. (T or F) When imprinting a line onto a 3DSolid, the source object cannot be deleted.
45. (T or F) Entering a shell offset distance of 1/16 means that the selected 3DSolid will become hollow with a wall thickness of 1/16.
46. (T or F) A SolidCheck system variable setting of 1 means that all 3DSolid objects selected for editing will be verified as ACIS solids.

Answers:

- |                                     |                    |                     |
|-------------------------------------|--------------------|---------------------|
| 1. Face                             | 16. Edge           | 32. Clean (body)    |
| 2. Edge                             | 17. Imprint        | 33. Separate (body) |
| 3. Body                             | 18. Body           | 34. Shell (body)    |
| 4. Face                             | 19. b              | 35. T               |
| 5. Extrude                          | 20. Clean          | 36. F               |
| 6. Extrude                          | 21. Extrude (face) | 37. T               |
| 7. Move                             | 22. Move (face)    | 38. T               |
| 8. Move                             | 23. Rotate (face)  | 39. T               |
| 9. A positive or negative<br>number | 24. Offset (face)  | 40. F               |
| 10. Volume of a 3DSolid             | 25. Taper (face)   | 41. F               |
| 11. Taper                           | 26. Delete (face)  | 42. c               |
| 12. Delete                          | 27. Copy (face)    | 43. T               |
| 13. Del                             | 28. Color (face)   | 44. F               |
| 14. Regions or bodies               | 29. Color (edge)   | 45. T               |
| 15. ConvToSurface                   | 30. Copy (edge)    | 46. T               |
|                                     | 31. Imprint (body) |                     |