



Compelling Preparation Techniques for the New AutoCAD® 2013 Certification Exam

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AC3317_AC5741-V_AC5742-V Accept the challenge! Are you ready? Explore the methodologies for passing the new AutoCAD 2013 Professional certification exam. This class offers tips and techniques to new and veteran AutoCAD users, giving them a chance to explore the time-saving strategies for navigating the professional certification exam user interface. We will work through the exam objectives, highlighting time-saving tips and techniques for methods of study and preparation. You will be able to develop a strategy for working through each question and understand what to study and what not to study. We will look at resources that are available to you as study guides. If you are up for a challenge, need to pad your resume, or want to achieve your personal or professional goals, attend this class and get ready to be surprised.

Learning Objectives

At the end of this class, you will be able to:

- Develop time-saving strategies for navigating the exam user interface
- Develop time-saving study and preparation techniques based on the exam objectives
- List key strategies for taking the AutoCAD Professional Certification exam
- Complete related exam objectives

About the Speaker

J.C. Malitzke is President of Digital JC CAD Services Inc. and is the former department chair of Computer Integrated Technologies and a faculty member at Moraine Valley Community College in the greater Chicago area. He managed and taught for the college's Autodesk Authorized Training Center. He has been using and teaching Autodesk® products for 27 years. J.C. is co-author to Good-Heart Wilcox Publisher for AutoCAD® and Its Applications Advanced. He is the recipient of several educator awards, including "Professor of the Year," and the Illinois Trustee Association's "Faculty Member of the Year," and a top presenter award winner at Autodesk University. J.C. is a Certified Autodesk Instructor and a Certified Autodesk Evaluator. This is his 18th year presenting at Autodesk University. He holds a BS degree in education and a MS in industrial technology from Illinois State University. Contact J.C. at: digitaljc@digitaljccad.com.

The NEW AutoCAD 2013 Professional Exam

The AutoCAD 2013 Certified Professional exam is aimed at assessing Professional users' knowledge of the tools, features, and common tasks of AutoCAD 2013. The exam is comprised of 35 questions of which the majority require you to use AutoCAD to create or modify a data file and then type your answer into an input box. Other question types include multiple choice, matching and point – and – click (hot spot). The exam has a 2 hour time limit. (in some countries, the time limits may be extended).

(Source: AutoCAD 2013 Autodesk Exam Preparation Roadmap, Autodesk Inc. 2012)

Before the new 2013 exams became available, you could sit for three different exams.

- The AutoCAD Certified User exam
- The AutoCAD Certified Associates exam
- The AutoCAD Certified Professional exam.

The new 2013 exams that you can sit for are:

- The AutoCAD Certified User exam
- The AutoCAD Certified Professional exam.

The AutoCAD Certified User exam includes both academic and industry requirements designed to confirm that AutoCAD users have the skills necessary to continue their design careers – whether they attend college, enter the workforce, or work toward additional level of industry certification. The exam consists of 30 questions combining multiple-choice and performance-based items to ensure students understand and can effectively use AutoCAD. This exam has a 1-hour time limit.

For more information, visit:

<http://www.certipoint.com/autodesk>

(Source: AutoCAD 2013 Autodesk Exam Preparation Roadmap, Autodesk Inc. 2012)

Note: this paper concentrates on the AutoCAD 2013 Certified Professional objectives. However, study and preparation techniques used for the AutoCAD 2013 Certified Professional exam are applicable to the AutoCAD 2013 Certified User exam. **NOTE: As mentioned above, The AutoCAD 2013 Professional Certification Exam is a combination of knowledge based questions and skill based questions. In other words, questions consisting of multiple-choice (similar to the AutoCAD 2012 Associates Exam) and performance-based items (hands-on, you are required to perform a task in AutoCAD) similar to the previous AutoCAD 2012 Professional. The answers to the questions may be text based or require numerical data input.**

Where should I start?

20 Compelling Tips and Techniques for Passing the Autodesk Certified Professional Exam

1. Go to: www.autodesk.com/certification and review the website information about the exams.
2. Start by downloading the AutoCAD 2013 Autodesk Certification Exam Preparation Roadmap (pdf) from: <http://usa.autodesk.com/adsk/servlet/item?siteID=123112&id=20343379>.
3. Review the AutoCAD 2013 Autodesk Certification Exam Preparation Roadmap (pdf).
4. Review the objectives listed below to get a better understanding of what to study and what NOT to study. The objectives for the exam are the key! This is your strategic roadmap!

AutoCAD 2013 Certified Professional

Topics	Objectives
Altering Objects	Stretch objects Offset objects Create a radius between objects Trim and extend objects Break and join objects
Annotations	Work with Text: text styles, text justification, and multi-line text Set the Annotative property for objects Create and use Multileaders
Create Template Content	Create and use templates

Creating Additional Drawing Objects	<ul style="list-style-type: none"> Hide and isolate objects Create polyline Edit polylines
Dimensioning	<ul style="list-style-type: none"> Create Dimensions Edit Dimensions Work with dimension styles
Drawing Organization and Inquiry Commands	<ul style="list-style-type: none"> Calculate the area of objects Change object properties Use layers
Hatching Objects	<ul style="list-style-type: none"> Use hatching
Insert and Manage External References	<ul style="list-style-type: none"> Apply External References
Isolate or Hide Displayed Objects	<ul style="list-style-type: none"> Isolate and hide objects
Manipulating Objects	<ul style="list-style-type: none"> Use grips Copy, Move, Mirror, and Rotate objects Use selection set methods Describe and use arrays Use rotation reference angles
Layouts and Visibility	<ul style="list-style-type: none"> Create and use Viewports Create and use layouts Create and Manage Layers
Printing and Plotting	<ul style="list-style-type: none"> Use page setup for plotting
Reusable Content	<ul style="list-style-type: none"> Create, insert, and edit blocks

5. **Study for the knowledge based exam questions first. Ask yourself before you start your review, “Do I know everything about the all the commands referenced in the exam objectives”?..... I would bet you do not!**
6. Use the Autodesk official certification guides to study from. The official guides are produced by Wiley Sybex and by Ascent. (See below). OR use any AutoCAD textbook or training manual to study from. *Remember, to only study the commands and features associated with the exam objectives.*

Autodesk Certification official prep materials:

 - a. Wiley Sybex: <http://ca.wiley.com/WileyCDA/Section/id-420052.html>
 - b. ASCENT: <http://ascented.com/courseware-solutions/autodesk/courseware/overview.aspx>
7. There are many online video tutorials on YouTube or from vendors that produce AutoCAD training videos. Again, only search for videos at relate to the exams objectives!
8. Use the AutoCAD Help menu. This is a great place to find out what the command is all about and about each subcommand. Work on studying the little known hardly used subcommands or command oddities. Remember the old saying, “we use 20% of the commands 80% of the time”. Well, you need to know more than 20%!

The example below is taken from the **AutoCAD Help** menu. I have highlighted in RED the topics of study for this command that relates back to the objective on JOIN.

Example: From the AutoCAD Help menu. I have highlighted in **RED** what would be studied.

JOIN (Command)

Joins the endpoints of linear and curved objects to create a single object.

Summary

Combines a series of finite linear and open curved objects at their common endpoints to create a single 2D or 3D object. The type of object that results depends on the types of objects selected, the type of object selected first, and whether the objects are coplanar.

Note Construction lines, rays, and closed objects cannot be joined.

List of Prompts

The following prompts are displayed.

Select source object or multiple objects to join at once:

Select lines, polylines, 3D polylines, arcs, elliptical arcs, helixes, or splines.

Source object

Specifies a single source object to which you can join other objects. Press Enter after selecting the source object to begin selecting the objects to join. The following rules apply for each type of source object:

Line

Only line objects can be joined to the source line. The line objects must all be collinear, but can have gaps between them.

Polyline

Lines, polylines, and arcs can be joined to the source polyline. All objects must be contiguous and coplanar. The resulting object is a single polyline.

3D Polyline

Any linear or curved object can be joined to the source 3D polyline. All the objects must be contiguous, but can be noncoplanar. The resulting object is either a single 3D polyline or a single spline, depending on whether you are joining to a linear or a curved object respectively.

Arc

Only arcs can be joined to the source arc. All the arc objects must have the same radius and center point, but can have gaps between them. The arcs are joined in a counterclockwise direction starting from the source arc.

The Close option converts the source arc into a circle.

Elliptical Arc

Only elliptical arcs can be joined to the source elliptical arc. The elliptical arcs must be coplanar and have the same major and minor axes, but can have gaps between them. The elliptical arcs are joined counterclockwise starting from the source elliptical arc.

The Close option converts the source elliptical arc into an ellipse.

Helix

Any linear or curved object can be joined to the source helix. All objects must be contiguous, but can be noncoplanar. The resulting object is a single spline.

Spline

Any linear or curved object can be joined to the source spline. All objects must be contiguous, but can be noncoplanar. The resulting object is a single spline.

Multiple objects to join at once

Joins multiple objects without specifying a source object. The rules and resulting object types are as follows:

- A line object results from joining collinear lines. The lines can have gaps between their endpoints.
- An arc or circle object results from joining coplanar arcs with the same center point and radius. The arcs can have gaps between their endpoints. Lengthening occurs in a counterclockwise direction. A circle object results if the joined arcs form a complete circle.
- A spline object results from joining splines, elliptical arcs, or helices together, or to other objects. The objects can be noncoplanar.
- A polyline object results from joining coplanar lines, arcs, polylines, or 3D polylines.
- A 3D polyline results from joining noncoplanar objects other than curved objects.

Related References

- **Commands for Editing Specific Objects**

Related Concepts

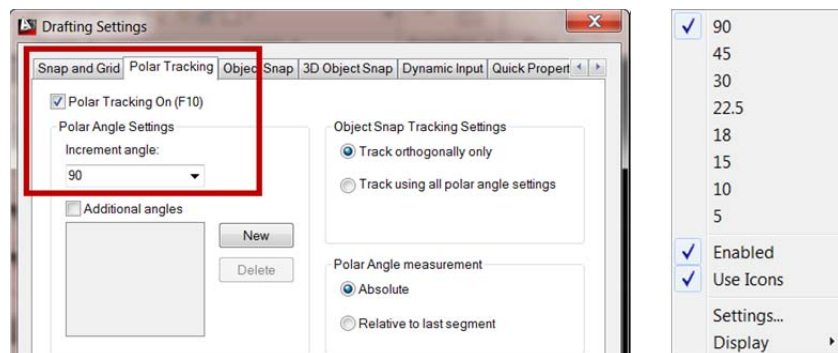
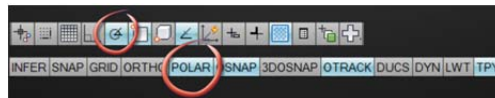
- **About Breaking and Joining Objects**

What you study is **everything** related to the command referenced in the exam objective.

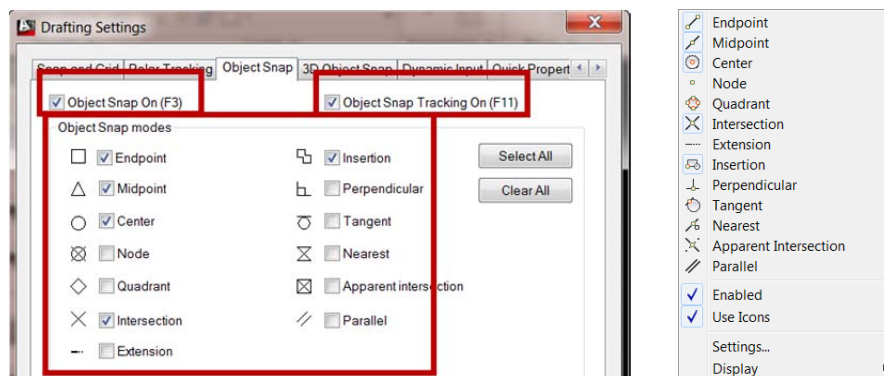
9. Repeat the above procedure for ALL the AutoCAD commands and/or features that are referenced in the exams objectives.
 - c. Stretch, offset fillet, trim, extend, break, join, text, mtext text styles, annotative property, multileaders, creating and using templates, hide and isolate objects, pline, pedit, how to create dimensions, how to edit dimensions, dimension styles, using properties, layer, hatch and hatch edit, xref, using grips, copy, move, mirror, rotate, selection sets, arrays, viewports, layouts, plotting page setup and blocks.

In review, study from these resources:

- a. The AutoCAD Help menu.
 - b. The Autodesk Certification official prep materials.
 - c. From other training guides or textbooks.
 - d. On-line videos.
 - e. Ask a friend to quiz you!
10. Set your Tools inside of AutoCAD for the hands-on study preparation. Do this when you get to the testing center before you start the exam if possible.
- Set: Polar tracking to 90 degree



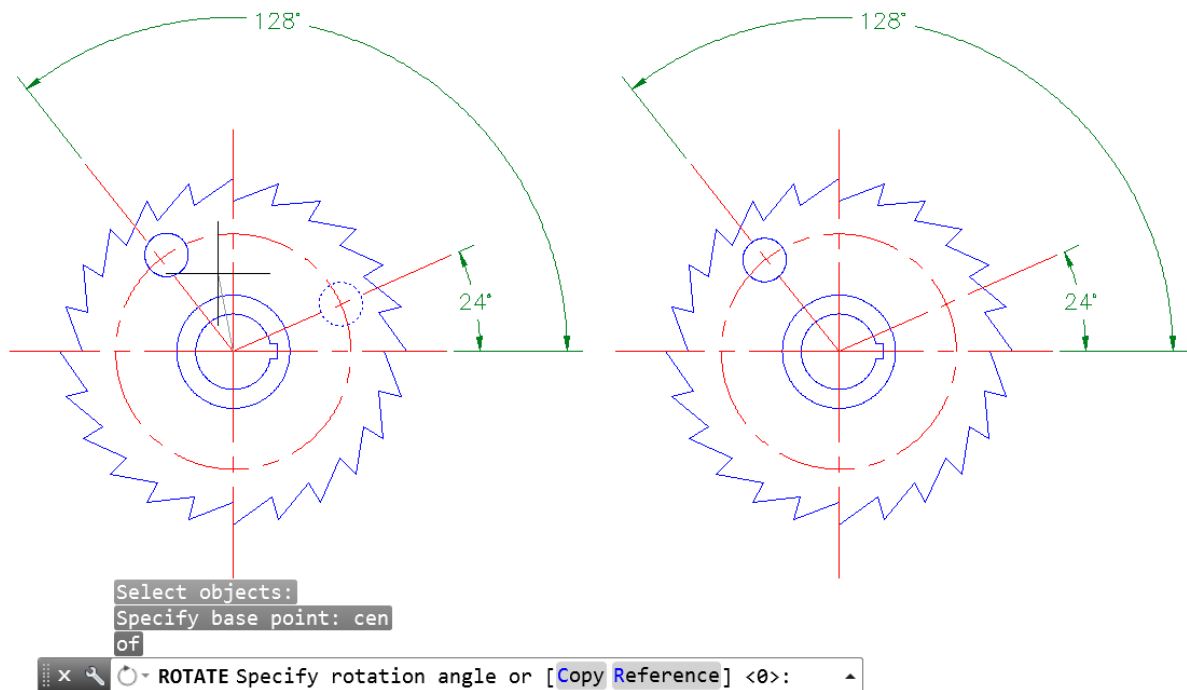
11. Set: Running object snap to: Endpoint, Midpoint, Center, Intersection and Insertion.
Turn on Object Snap Tracking



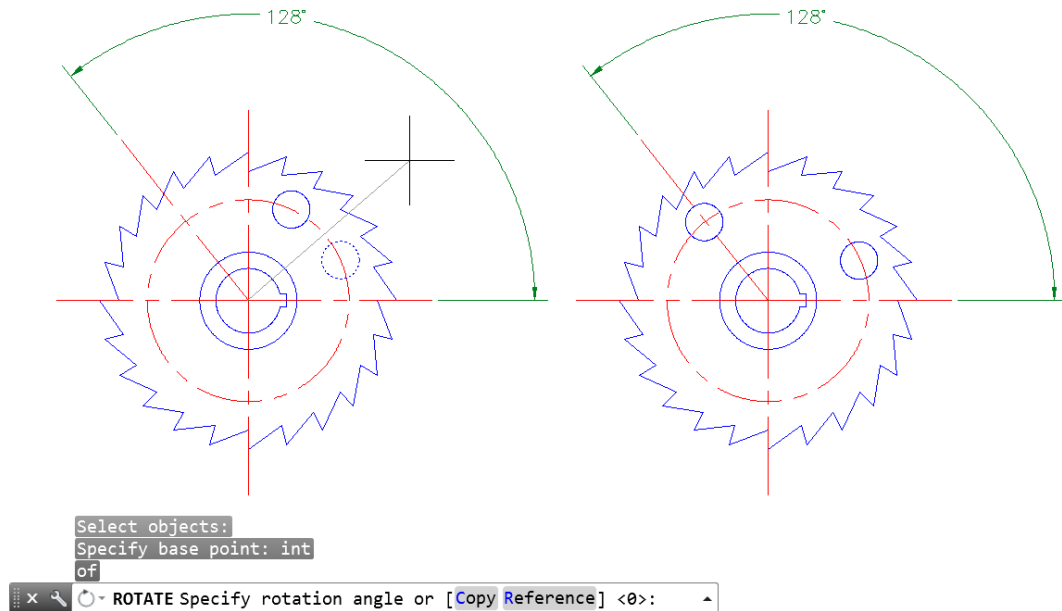
12. Practice using each command referenced in the exam objectives inside of AutoCAD *after* you has studied each command as outlined above. This gets you ready for the hands-on portion of the exam. Do what you do every day when using AutoCAD by trying different scenarios and permutation methods for using these commands. Then, try using each commands sub command based on what you have studied above. Develop an understanding of what you can do and what you cannot do using each command.

Example: Rotate In the example below we need to rotate the circle from its current position at 24 degrees to its new position at 128 degrees

How do you rotate the circle? Where is the base point? Do you use the subcommands **Copy** and/or **Reference**? Do you rotate the circle 128 degree or 104 degrees?



In the second scenario, you need to create a copy the circle and rotate it to new position at 128 degrees. But we do not know the current angle. How would you do this? Do you use the **Copy** subcommand? Do you use the **Reference** subcommand? And at what angle do you rotate to?



Since the rotate command has two subcommands, we need to understand the workflow of how each subcommand affects the rotation outcome. Practice each command in a similar fashion.

13. Review the AU virtual videos I created for AU 2012. The course names are: AC5741-V and AC5742-V **Compelling Tips and Techniques for passing the new AutoCAD® 2013 Certification Exam. Part 1 and Part 2** I reviewed as many of the exam objectives hands-on as time permits in each video.

Workflow for taking the AutoCAD Professional Exam.

14. Know the Inquiry commands. The MEASUREGEOM command options: **List, Distance, Area, Radius and Angle**. Also, know how to modify object properties using the **Properties palette**. Practice using all of the above before you take the exam.
15. ALT-TAB. If you are using a single screen to take the exam, you will need to practice copying and pasting the answer from inside of AutoCAD to the test application window answer box. Practice toggling back and forth between two applications and copying and pasting data. *ALWAYS double check your answer after you have copied it from inside of AutoCAD to the test application window answer box. I have heard of many cases where the previous answer that is*

on the clipboard gets pasted into the next questions answer box and the wrong answer is recorded!

16. Read each question thoroughly

Read the whole question. If the question is a knowledge based question, look at the answers. If you know the answer, select it. If don't know the question, skip it and come back to it later. Do not spend a lot of time trying to figure out what the answer is until you have completed the questions you do know!.. Remember, you can always come back to a question you do not know or are unsure about. But once you have answered the question that you are sure about, do not change the answer. We know that usually the first answer is the correct answer.

17. Only draw what is needed.

For the hands-on skill portion of the exam only draw what is asked in the order it is asked. Simply put, *follow the directions to the letter!*

18. Saveas (maybe). You really do not need to save anything. But if you want to save the drawing that you have been working on, *saveas* the drawing under a different name.

19. . Feel confident going into the exam. Relax when taking the exam. Do not rush through the exam. Use all the time that is allowed. Review each question as needed.

What happens if I fail the exam?

20. If you fail the exam, get the results printed out at the exam site. Do not get down on yourself! Immediately, start writing down all the possible things you remember about the exam. Type of question, (knowledge based or skill based), how was the questions were worded, draw pictures of what you saw, etc. Then go back to your computer and start to review again. The key is that you do not want to lose any possible advantage you have by already by taking the exam. Right after the exam you are the most dialed into the exam mentally. Review immediately after the exam!

Good luck!

Disclaimer: this paper is for educational purposed only. No AutoCAD Professional Certification Exams questions were used or discussed. This paper is designed to highlight compelling tips and techniques for methods of study and preparation. There are no guarantees that reading this paper of taking this class you will pass any of the AutoCAD Certification Exams.