



## WORKING IN AUTO CAD SOFTWARE THROUGH DRAWING DRAWINGS AND GRAPHICS.

**Rakhmonov Saydullo Murodjon ugli**

Student of Fine Arts and Engineering Graphics at Andijan State  
Pedagogical Institute.

Email: rakhmonovsaydullo406@gmail.com

Phone: +998991708343

<https://doi.org/10.5281/zenodo.7976577>

### ARTICLE INFO

Qabul qilindi: 22-May 2023 yil

Ma'qullandi: 24-May 2023 yil

Nashr qilindi: 27-May 2023 yil

### KEY WORDS

*graphics, models,  
parallelepiped, isometry,  
pyramid, prism, sphere, radius  
Auto CAD program.*

### ABSTRACT

*In this article working in the Auto CAD program using information technologies through graphic image drawing drawings is shown. This In addition, computer literacy and graphic programming are presented to readers and students.*

*Basic knowledge of the Auto CAD program, further strengthening of knowledge through various programs and drawing quality drawings, drawing students or students in the science of drawing using the Auto CAD program, graphic drawings, for example, making a parallelepiped, making a semi-parallelepiped, making a cone, making a cylinder and several examples are given and illustrated with graphic drawings.*

Today, information technologies are widely used in every field. In particular, the field of information technologies for creating graphic programs and working with them is widely used today in production and project organizations, in construction, and in many other areas of production. Graphical programming plays an important role in increasing productivity.

In general secondary schools, vocational schools and academic colleges and higher education, along with private organizations, many programs are taught and knowledge is improved.

Currently, these programs have gained a place in the teaching process due to their ease of use. One of these programs, Auto CAD software graphics software, provides practical knowledge and skills to students or students in the field of drawing in drawing drawing lines based on dimensions, quality drawing and describing curves from Auto CAD software graphics software. Readers and students again use this program and the reader helped the young people to grow their graphic literacy.

The use of information technology increases knowledge and skills. The drawing course provides basic information on the Auto CAD program, and in this program, all fine arts and drawing subjects are taught by the teacher. There are hands-on classes for this program at the student development institutes, and opportunities have been created for students to fully realize their learning and drawing through computer graphics software.

If the teacher makes extensive use of graphic software in drawing lessons, teaches students the basic concepts of this program from a practical side, and conducts classes using these programs to illustrate drawings and models, the effectiveness will certainly increase.

It serves to clarify students' spatial imagination by increasing visibility in lessons, arouses interest in science and strengthens students' competence practice. What graphics programs should art teachers know and how to use them in their teaching, and what should be done to ensure that all science teachers can use them.

The teacher constantly strengthens his knowledge, and at the same time improves his skills in a certain period of time, by improving his knowledge of practical training in graphic programs (Google Sketchup, Auto CAD, KOMPAS 3D, 3D Max, etc.) to go

Through this, the teacher will be able to organize classes using new modern programs and technologies, along with providing more knowledge to the student and students. Today, we know that among the teachers and students of the programs, targeted training classes and competitions are organized on the scale of districts and regions, and in these competitions and competitions in the field of drawing, they perform and give assignments in graphic programs. It is also possible to find out how well the student has mastered drawing.

Organization of such Olympiads in developed countries (for example, in Russia, there is an Olympiad in Kompas 3D among high school students). In addition, each teacher will be able to study these programs in special training courses based on his ability, and in addition to quality teaching of his subject, the teacher will be able to improve his knowledge.

Future generations will be able to teach pupils and students using new and interactive methods, which are necessary for the teaching process, if information technologies are widely used together with quality knowledge. Explaining drawing models and stages of drawing to students using a graphic program, showing the stages of performing various didactic games, problems and practical exercises will increase their interest in the lesson.

When the drawing lesson is taught using information technology, it is interesting, and at the same time, it is very important for students to remember. In order for students to acquire better knowledge, theoretical and practical classes are of great benefit to their learning.

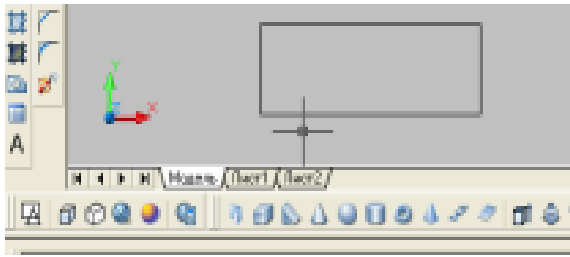
When using graphic programs in drawing classes, the teacher must have theoretical and practical knowledge and skills about these programs, use them optimally, and adapt the graphic education process to science. Today's modern graphic programs can be widely used in drawing classes, and to learn and improve their skills by learning some graphic programs. The programs are considered convenient for drawing various drawings, analyzing them and editing them.

In our table, we have shown some of the graphic programs that are convenient for drawing, because now there are a lot of such graphic programs and the fields of application are different.

If the teacher of drawing has an average level of practical knowledge of two or three of these programs, the lesson processes will be more understandable for students and students, or they will master drawing better, which will make the lesson meaningful. no doubt.

### **Commands for three-dimensional design of solid bodies of AutoCAD Making a parallelepiped in the Auto CAD program.**

Using the BOX command, a parallelepiped is created as follows.



1-rasm.

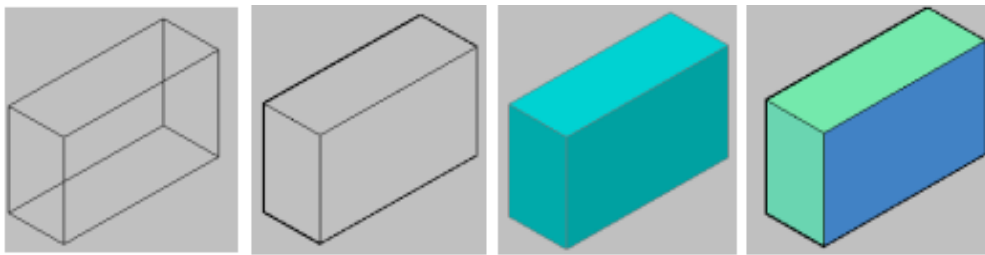
First the corner of the base of the box is asked, then the diagonal of the base and finally the height of the box.

The requested indicators and dimensions are entered, Fig. 1.

The eighth "FACE isometry" button in the "Vid"-view panel is loaded and a prism with the dimensions entered is created on the screen, Fig. 2. If buttons 3, 4, and 5 are pressed in sequence, clear isometric projections of the

prism will become volumetric from the frame view, as in pictures 2, 3, 4, 5.

If the base sides and height of the parallelepiped are equal, a cube will be displayed on the screen.



2-rasm.

3-rasm.

4-rasm.

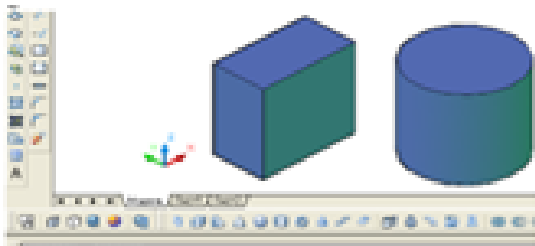
5-rasm.

**Surfaces in Auto CAD software by lifting or dipping the tool, dragging and moving along the guide. Making objects by lifting or dipping.**

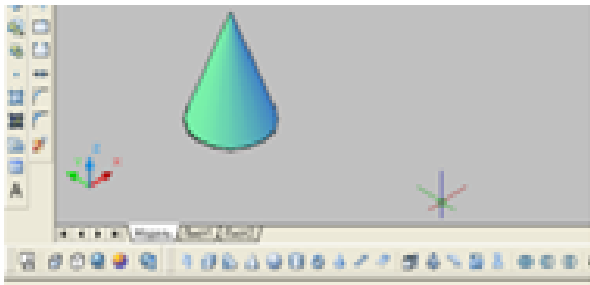
The raise or sink command gives height to the two-dimensional object creator, raises or sinks them, and enables the creation of three-dimensional objects. This command algorithm is executed in the following sequence.

A two-dimensional primitive (circle, rectangle, triangle, curve, etc.) is defined, separated. The height of the object is entered. The taper angle is determined (for cones and pyramids). If there is no taper angle, the "ENTER" key is pressed and a cylinder or prism surface is created, Fig. 6. In the drawing, the rectangle and the circle are raised by 300 mm.

**In Auto CAD software making a cone.**



6-rasm.



7-rasm.

The sequence of the algorithm for selecting the cone command to make a cone in the Auto CAD program is as follows.

To make a cone, the center of the base is selected (circle or ellipse). The base radius is given, 200 mm. A cone height of 500 mm is entered and a cone is made, Fig. 7. If the base of the cone is an ellipse, the dimensions of the ellipse are entered.

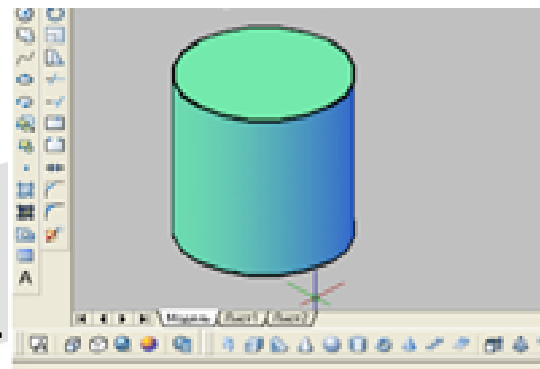
**In Auto CAD software making a cylinder.**

After entering the cylinder command

to create a cylinder by entering the Auto CAD program, its execution order is as follows.

Enter the Auto CAD program and the base center will be displayed. The base radius is dialed, (150 mm). The height of the cylinder is entered (350 mm) and a cylinder is created on the screen, Figure 9.

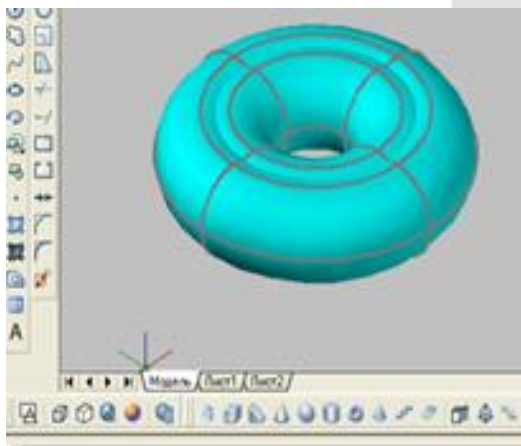
**In Auto CAD software making a loop - string.**



9-rasm.

o make

a ring-string in the Auto CAD program, entering the ring-string command, its execution algorithm is in the following order. In the Auto CAD program, to make a ring - a ring, mark the center of the ring and enter the radius of the ring (150 mm). The radius of the forming circle is entered, (80 mm) and it is made on a narrow screen, Fig. 10.



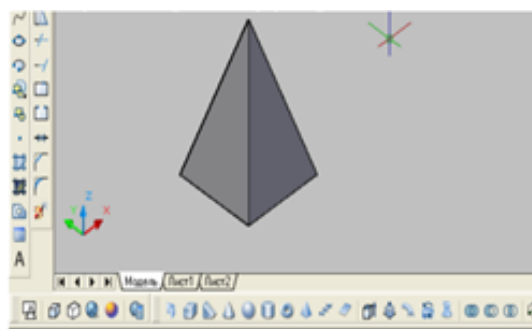
10-rasm.

**In Auto CAD software make a pyramid.**

pyramid in the Auto CAD program, the for creating a pyramid on the workbench by selecting the pyramid is as follows.

To create a pyramid in Auto CAD, computer is set to suggest drawing a with a quadrilateral base, and is asked the center of the base. If it is necessary such a pyramid, the center, which is the base, is shown. The base radius is entered. The requested height of the pyramid is entered and the pyramid is drawn on the screen, Figure 11.

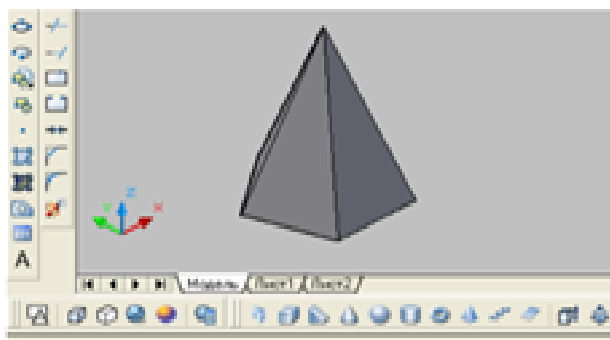
A 5, 6 or sided pyramid is drawn on the screen based on the following algorithm sequence.



11-rasm.

To create a algorithm command the pyramid to indicate to draw

The computer is asked to draw a quadrilateral-base square pyramid and indicate the center of the base. This command also offers additional Edge/Storony commands. The letter "s" is typed from it, recorded with "Enter", the number of sides is entered, for example 5, and the center of the base of the pyramid is indicated. The base radius is entered. The requested



12-rasm.

pyramid height is entered and a pentagonal pyramid is drawn on the screen, Figure 12.

In conclusion, it can be said that every person feels the need for information technology every day. As an example, a teacher or a young pedagogue should be able to respond to today's demands in a way that is in tune with the times. At the same time, it is necessary to teach students to draw graphic programs,

which will help them to master the lesson well in all aspects. It is intended to increase the knowledge of the students, and it can be said that it is a guarantee of the use of special interactive methods, making the subject interesting, and the quality organization and passing of the lesson in all aspects.

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