

Engineering Drawing Instructions



- The Forum
 - Lively and respectful discussions are encouraged
 - Daily readings
 - Weekly discussion questions
- Quizzes and Worksheets
 - On eLearning platform
- Tests (**Please note that your account must be up-to-date for you to take part in the test**)
 - Multiple choice questions
 - Shorts answer questions
 - Long answer questions
- **All assessments will be graded and contribute to your continuous assessment marks**
Enquiries and questions
 - Course topic: Geometric constructions
 - Name of Lecturer: M. Bonde
 - Department – TVET

Engineering Drawing



Geometric constructions



This lesson will focus on :

✧ Construction of an ellipse using the four centre method



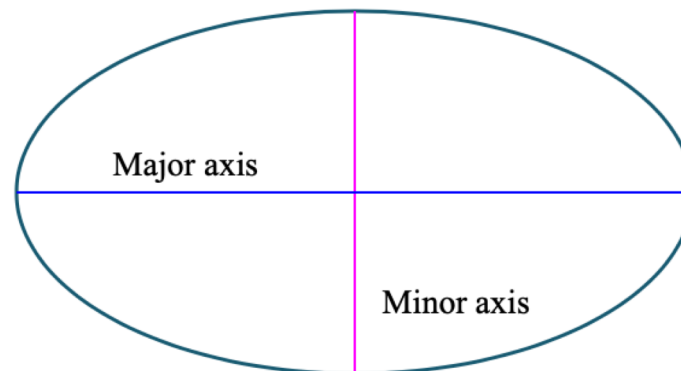
Lessons Objective(s)

At the end of the lesson, students will be able to:

- ✧ Identify an ellipse
- ✧ Know the difference between the major and minor axis
- ✧ To use a compass and other instruments to construct an ellipse given the minor and major axis by utilizing the four center method
- ✧ Reproduce drawings using the geometric construction techniques learnt in the previous lessons
- ✧ Reproduce or copy views of given objects
- ✧ Understand the use of scales.
- ✧ Reproduce enlarged, reduced, or full size drawings.

Ellipse

- ✧ **ellipse** is a plane curve surrounding two focal points, such that for all points on the curve, the sum of the two distances to the focal points is a constant
- ✧ As such, it generalizes a circle, which is the special type of **ellipse** in which the two focal points are the same

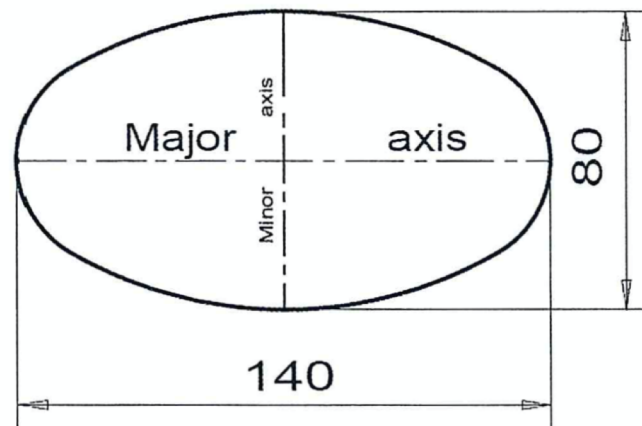


➤ **Exercise... Due Date 10 April 2020**

➤ Watch the video...

<https://www.youtube.com/watch?v=eis2P958ONo>

❖ **Construct the following ellipse using a scale of 1:1**



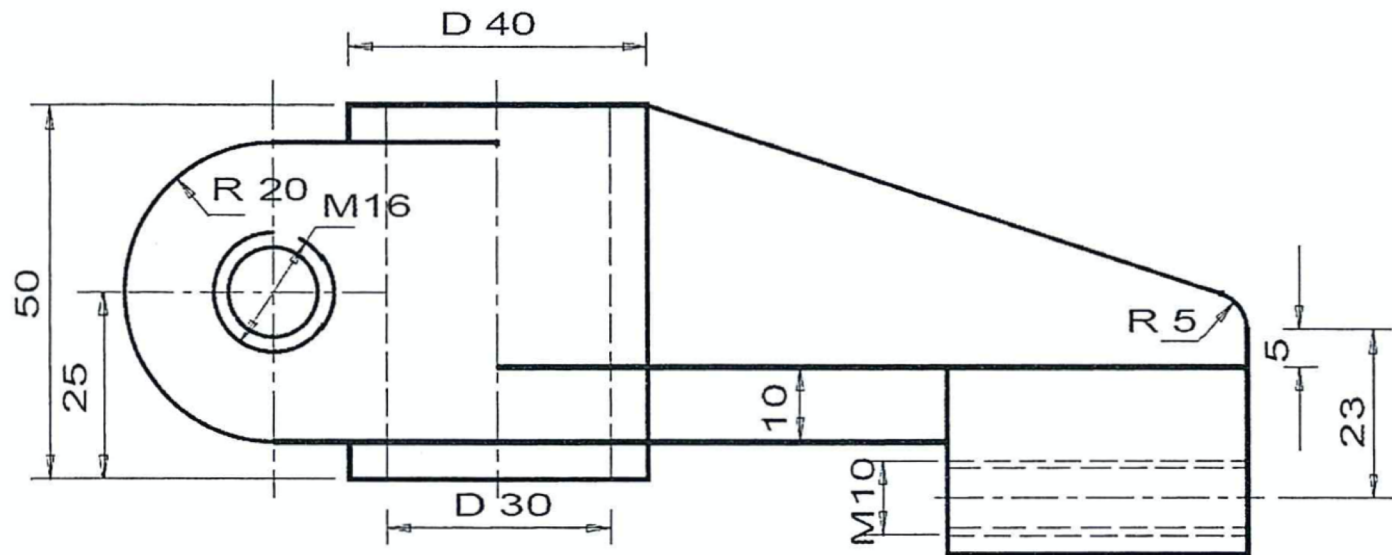


Reproducing drawings

- ✧ Reproduce or copy views of given objects
- ✧ Understand the use of scales.
- ✧ Reproduce enlarged, reduced, or full size drawings.
- ✧ Watch the videos:
- ✧ <https://www.youtube.com/watch?v=2V8GBZGwRmk>
- ✧ <https://www.youtube.com/watch?v=cilcmysb67A>

•Exercise Due Date : 10 April 2020

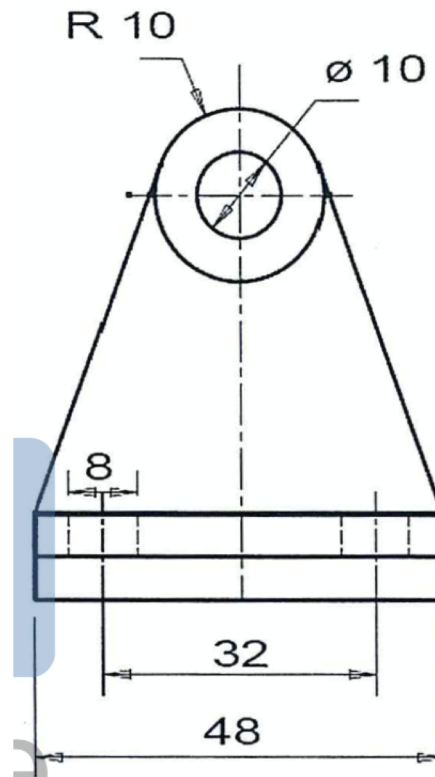
• Copy the following using a scale of 1:1



Exercise Due Date : 10 April 2020



- Reproduce the following using a scale of 2:1





Summary..

- ✧ The trainee has learnt how to construct an ellipse using the 4 centre method.
- ✧ The trainee also learnt how to reproduce drawing a given scale



Resources

✧ **Engineering Drawing For Vocational Training-1
Second Edition**

✧ <https://www.youtube.com/watch?v=eis2P958ONo>

✧ <https://www.youtube.com/watch?v=2V8GBZGwRmk>

✧ <https://www.youtube.com/watch?v=cilcmysb67A>



The End

✧ Thank You