

PENANG SANGAM HIGH SCHOOL

P.O.BOX 44, RAKIRAKI

WEEK 14 WORKSHEET

Subject: Technical Drawing

Year/Level: 12

Strand	TD 12.3 APPLIED DRAWING
Sub Strand	TD 12.3.2 ARCHITECTURAL DRAWING
Content Learning Outcome	TD 12.3.2.2 Identify and construct the different engineering components, hardware & assembled drawings.

LESSON NOTES

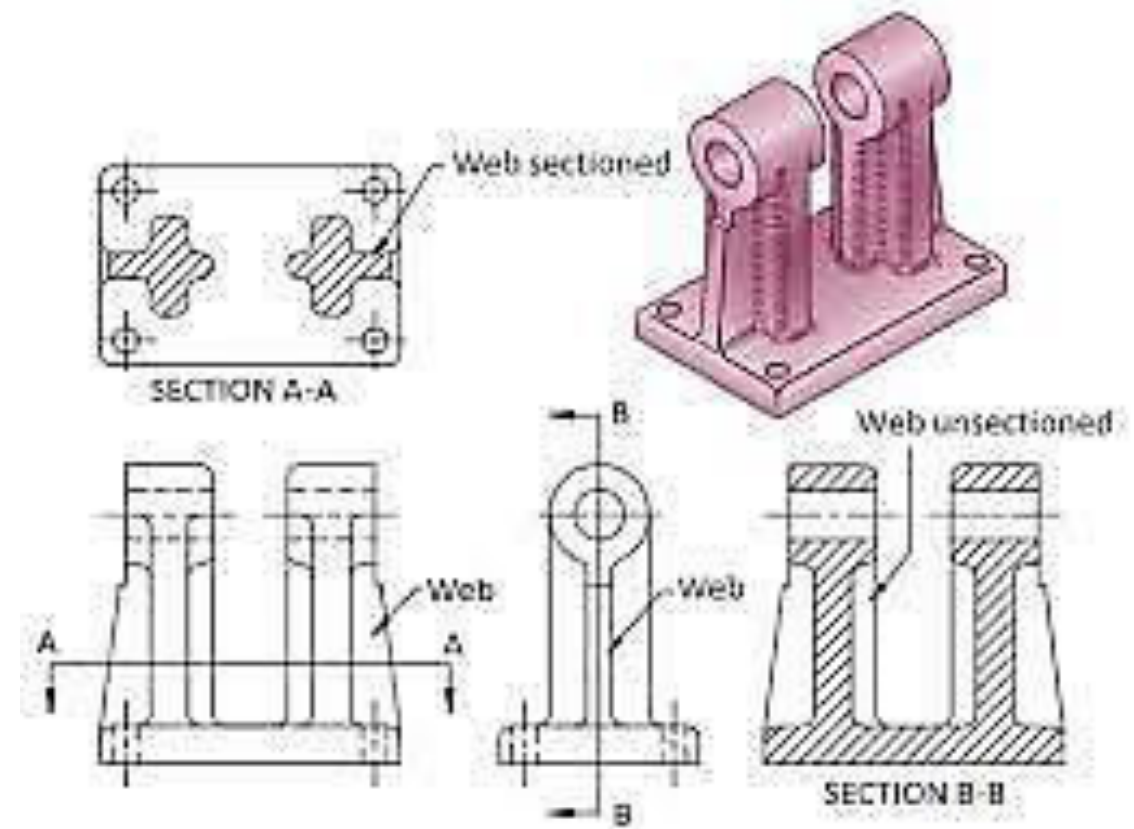
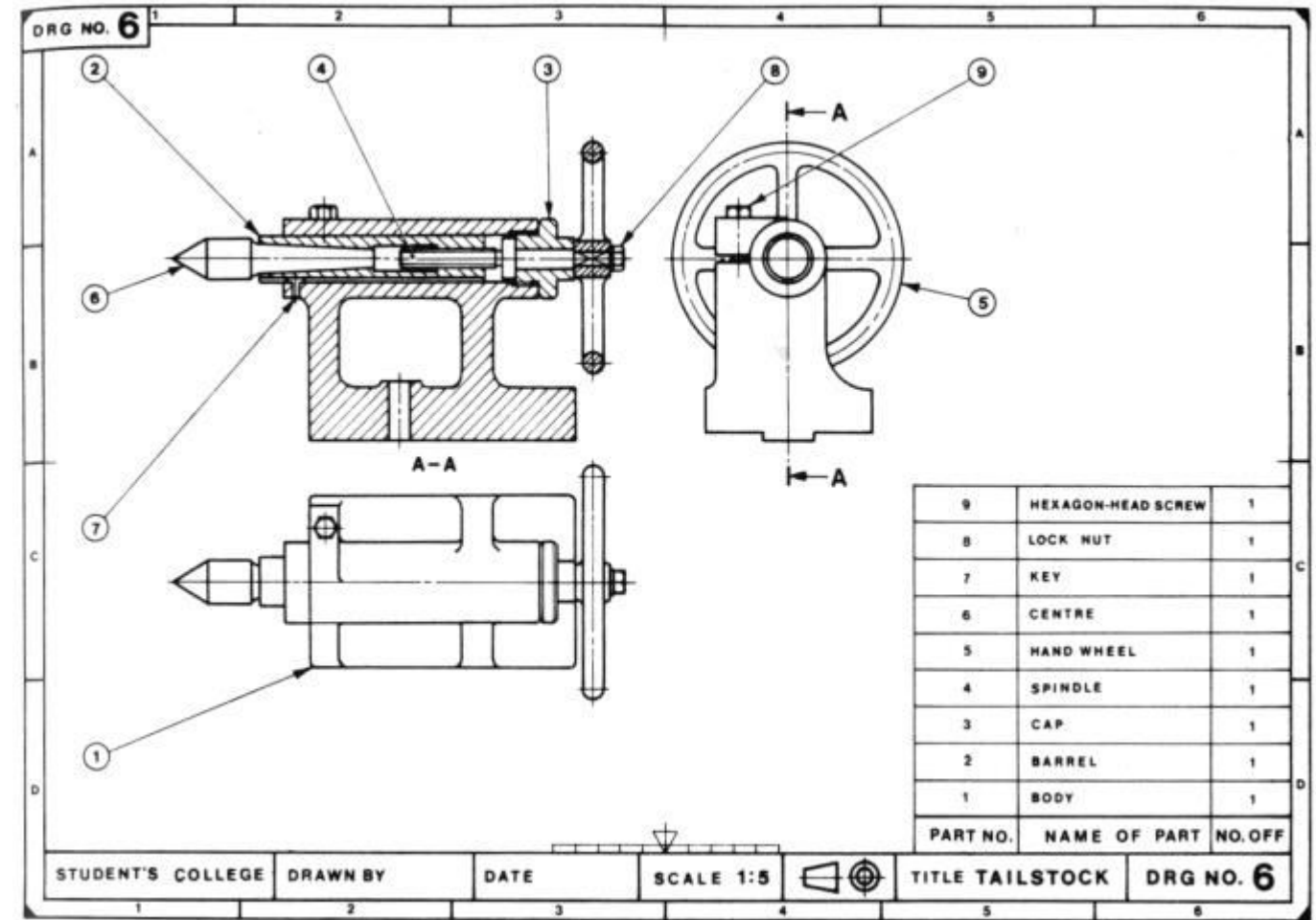
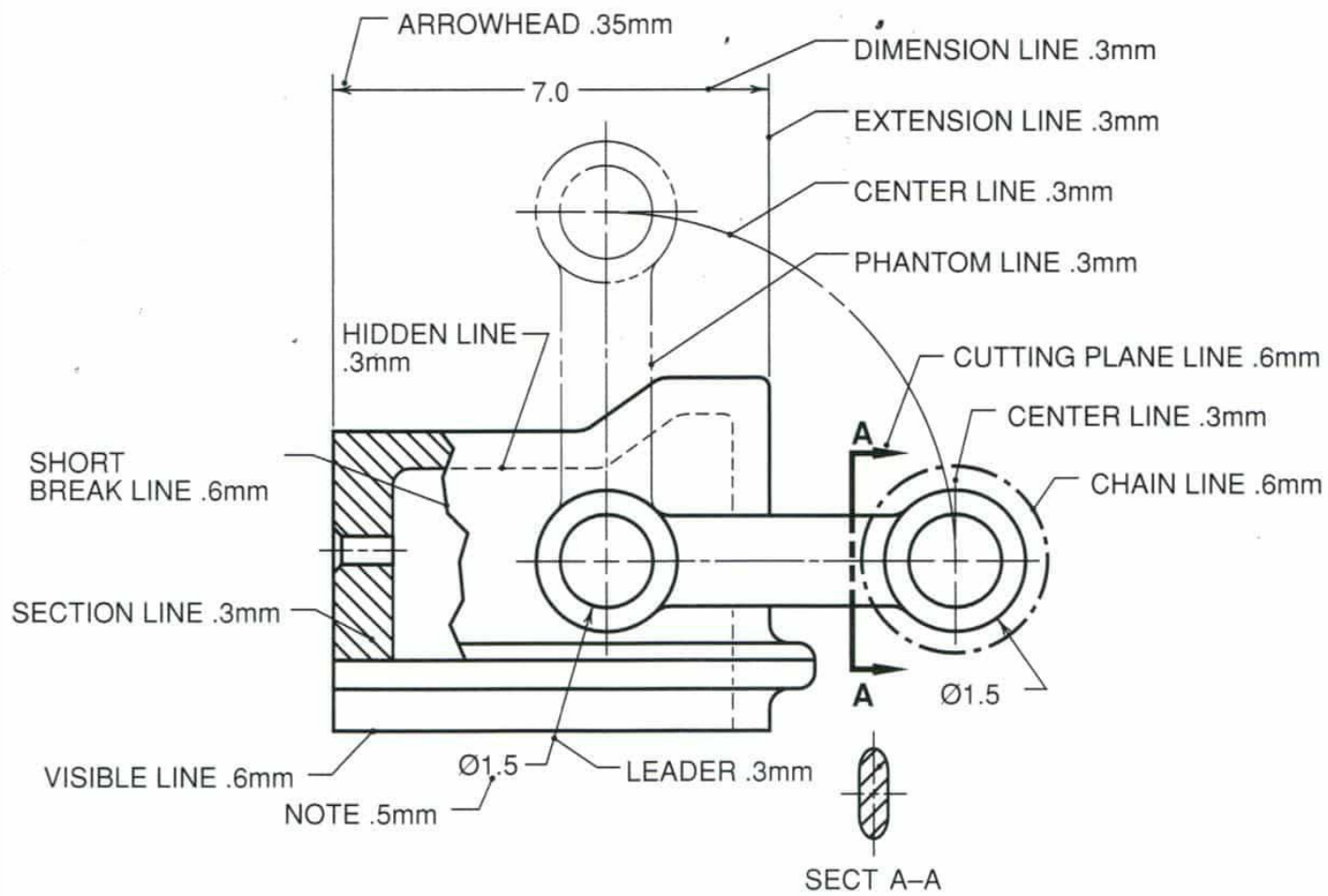
ENGINEERING DRAWING

OUTCOME

By the end of this topic, students will:

- a) Identify the different types of engineering components.

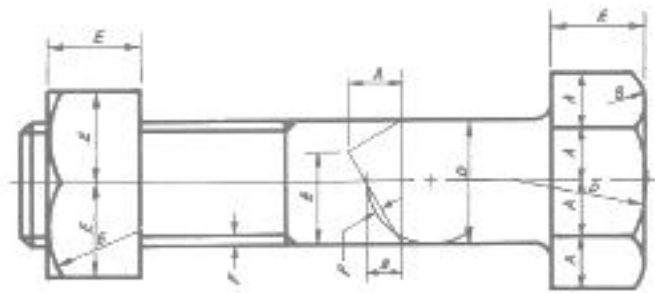
Examples



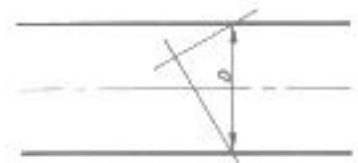
STUDENT ACTIVITY

In practice, standard bolts and nuts are not shown in their exact dimensions but in a more conventional representation in which the proportions are based upon the diameter of the bolts or studs used.

METHODS OF CONSTRUCTING BOLTS AND NUTS



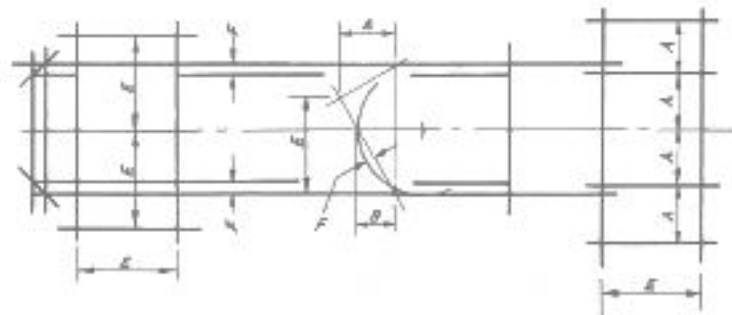
30°/60° triangle method
This method of drawing bolts and nuts is generally favoured for classroom work and the procedure is as follows:



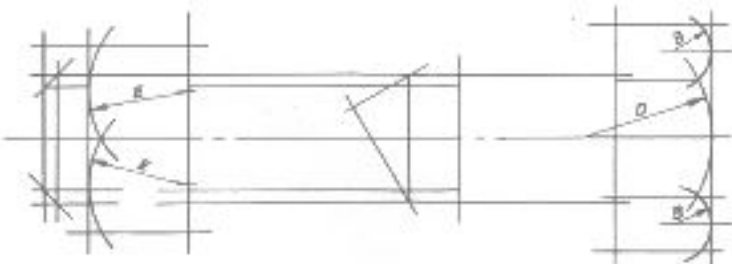
(a) Draw the diameter of the stud or bolt shank and a 30°/60° triangle.

SOLUTIONS

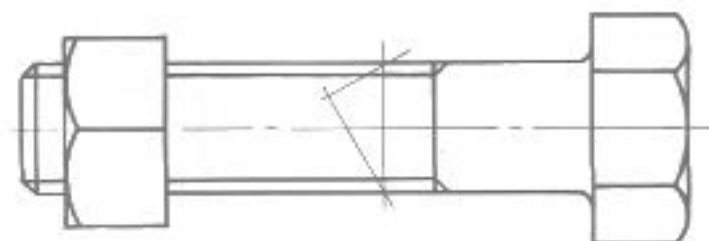
- 1. WEB
- 2. SHAFT
- 3. BOSS
- 4. OIL HOLE
- 5. KEYWAY
- 6. BUSH
- 7. SPOTFACE
- 8. KEY
- 9. FILLET
- 10. DOVETAIL
- 11. COUNTER SUNK HOLE



(b) Mark off the proportions on the triangle and set out on the drawing.



(c) Draw all curves.



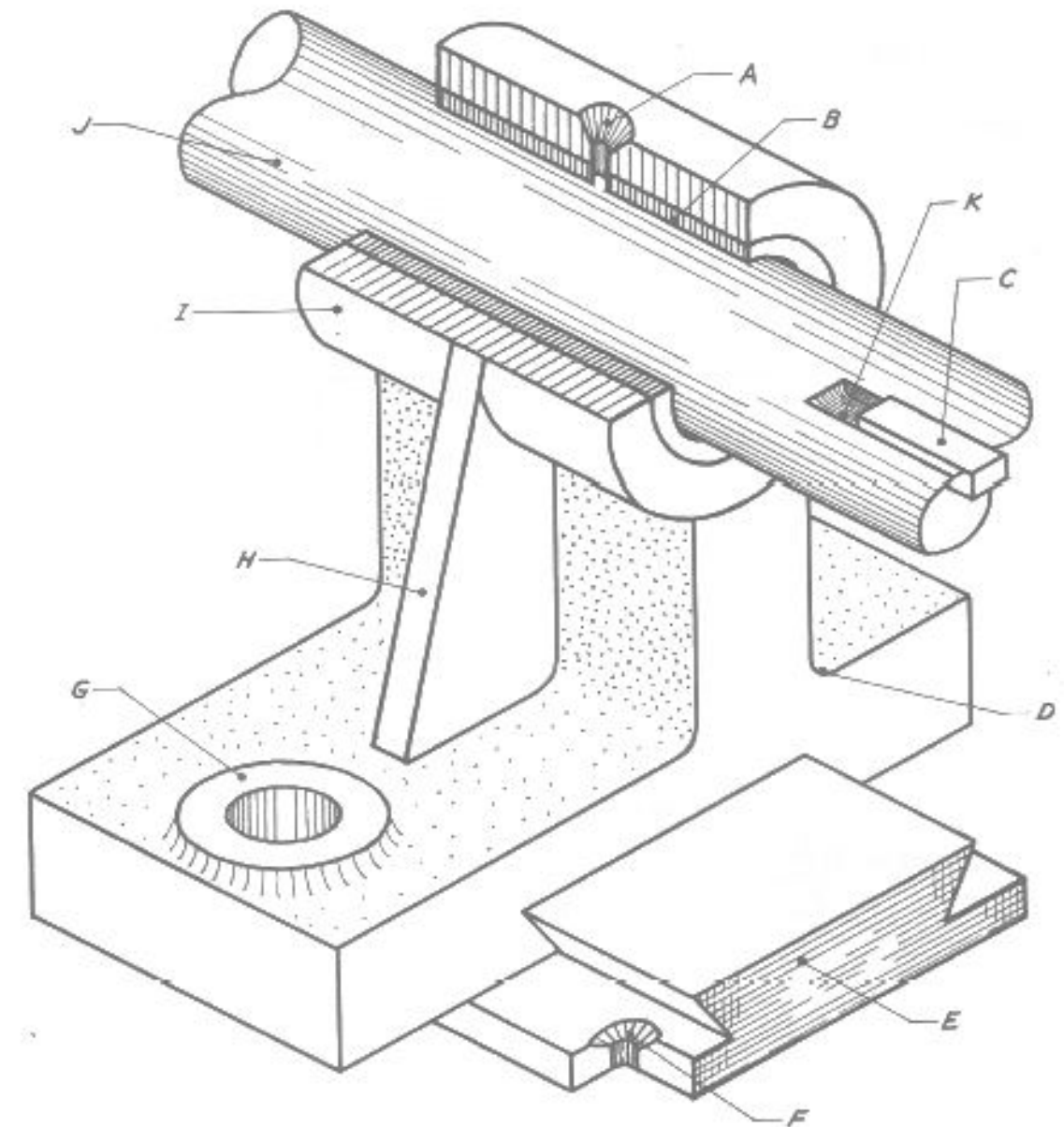
(d) Line in.

Note: When both boltheads and nuts are drawn, the view of the bolthead is drawn across the corners and the nut is drawn across the flats.

Given : The sketch shows a mechanical part with objects and terms used in engineering drawing.
Required : Match each alphabet from the drawing with the correct term from the column, solutions.

MATCHING

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- _____



THE END