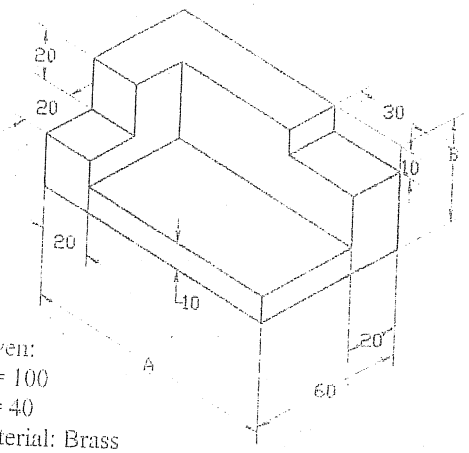
Exercise.

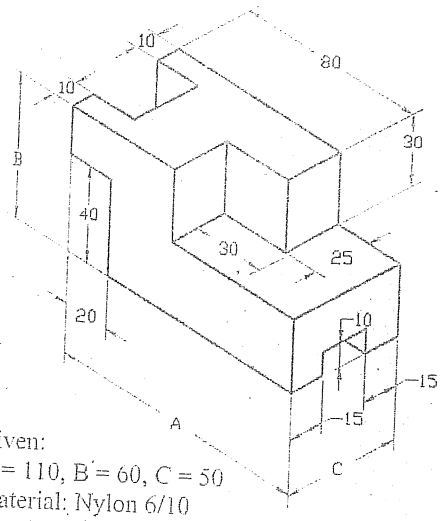
1. Create the following part. All dimensions are in mm.



Given:
A = 100
B = 40
Material: Brass
Density = .0085 g/mm^3
Units: MMGS

Exercise

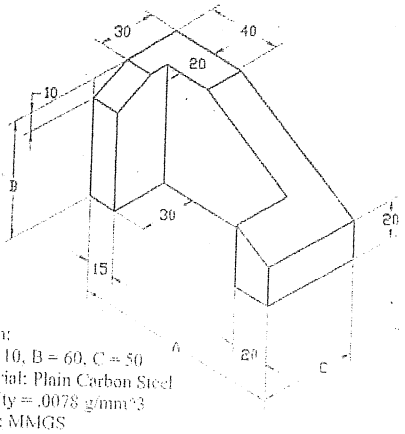
1. Create the following part. All units are in mm.



Given:
A = 110, B = 60, C = 50
Material: Nylon 6/10
Density = .0014 g/mm^3
Units: MMGS

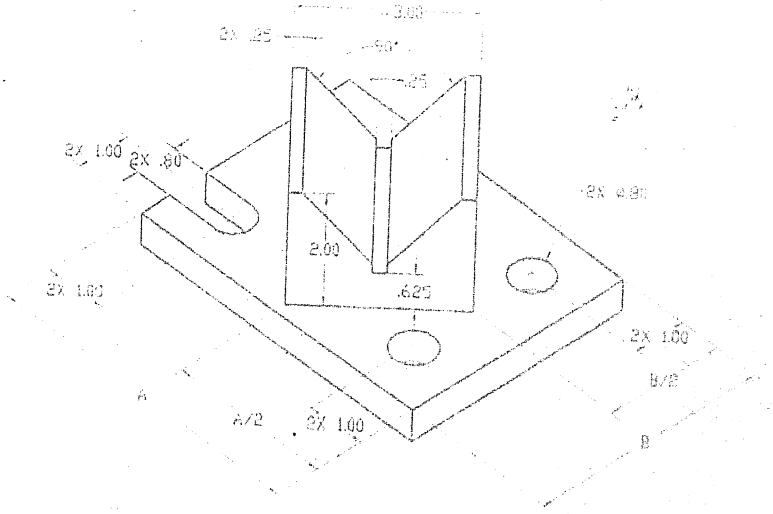
Exercise.

1. Create the part below.



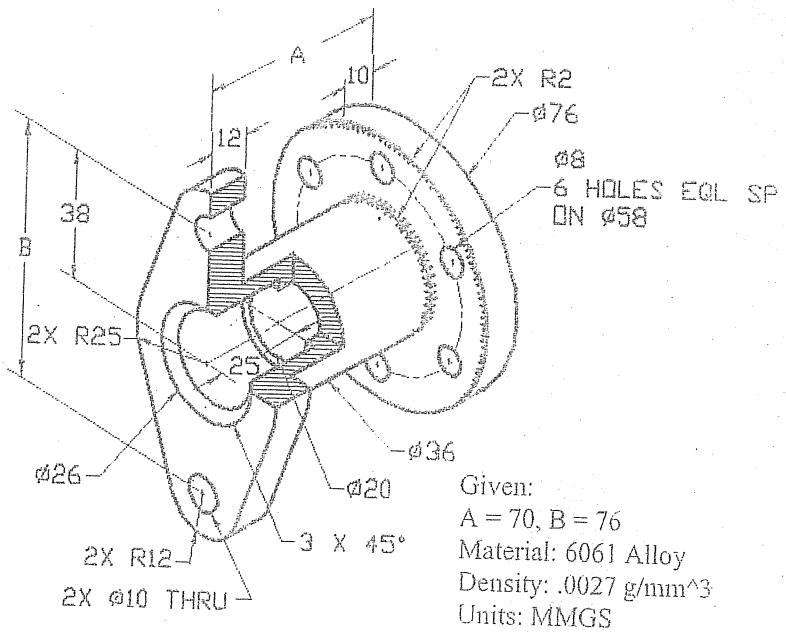
Given:
A = 110, B = 60, C = 50
Material: Plain Carbon Steel
Density = .0078 g/mm^3
Units: MMGS

Task 1 – Lowest complexity



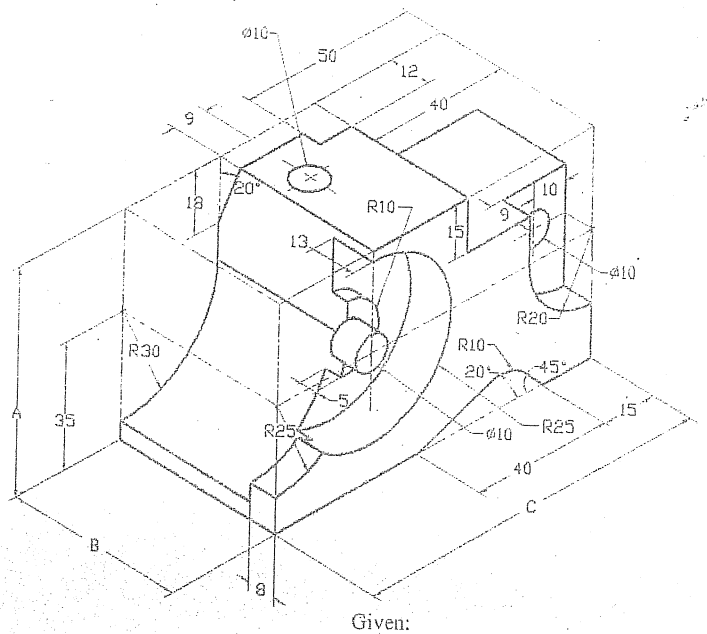
Given:
A = 6.00, B = 4.50
Material: 2014 Alloy
Plate thickness = .50
Units: IPS
Decimal places = 2

Task 2 – Medium complexity



Given:
A = 70, B = 76
Material: 6061 Alloy
Density: .0027 g/mm^3
Units: MMGS

Task 3 – Highest complexity



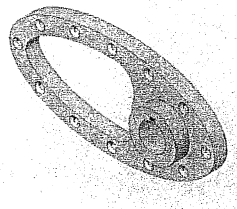
Given:
A = 63, B = 50, C = 100
Material: Copper
Units: MMGS
Density: .0089 g/mm^3
All HOLES THROUGH ALL

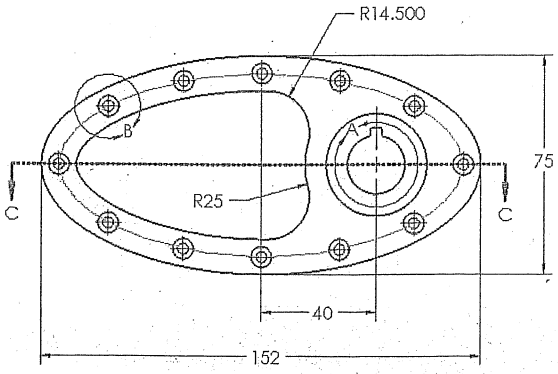
Exercise

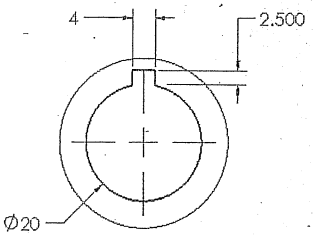
1. Create the part below using the information provided.

   All holes are countersunk for an M3 Flat Head Machine Screw

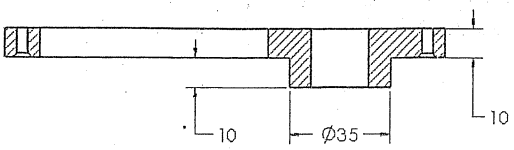
   All units are in mm.



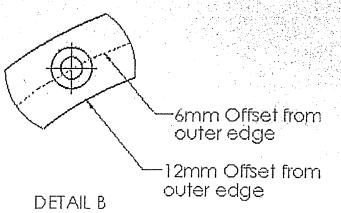




DETAIL A
SCALE 2 : 1



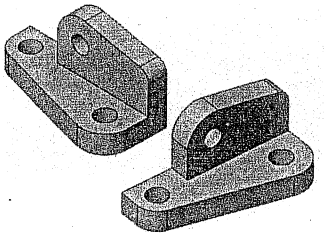
SECTION C-C



DETAIL B
SCALE 2 : 1

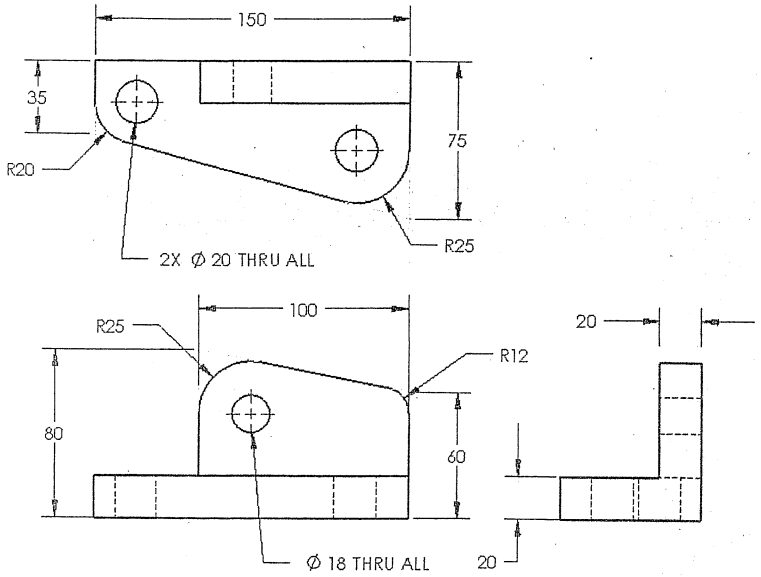
Exercise

1. Create the part below. All dimensions are in mm.



Design intent.

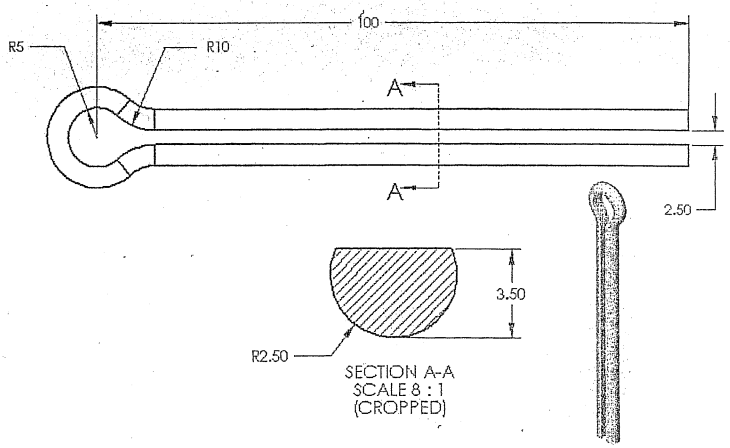
- Holes are concentric to circular edges.
- Thickness of bosses are equal.
- All holes are through All.



Exercise

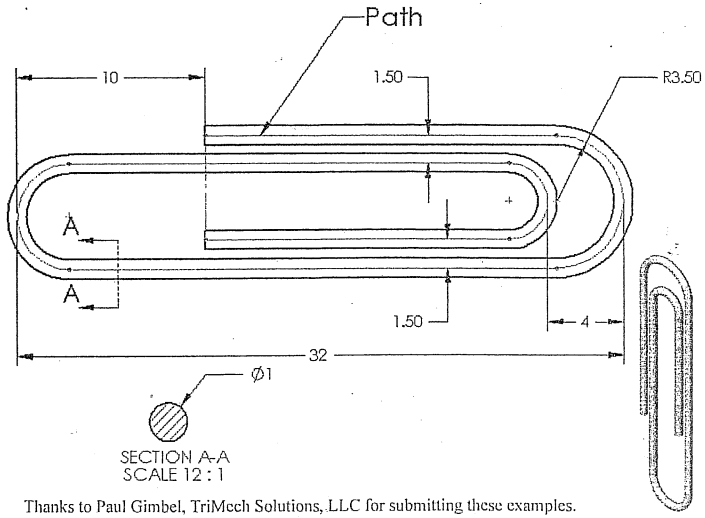
1. Create the part below using swept features.

The path dimensions define the inner edge of the part.



Exercise

1. Create the paper clip as detailed below.

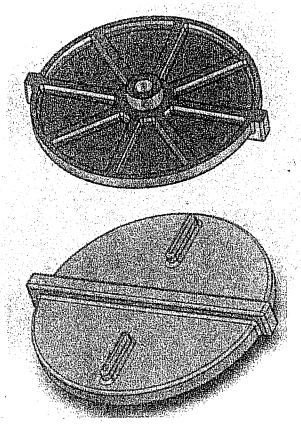


Thanks to Paul Gimbel, TriMech Solutions, LLC for submitting these examples.

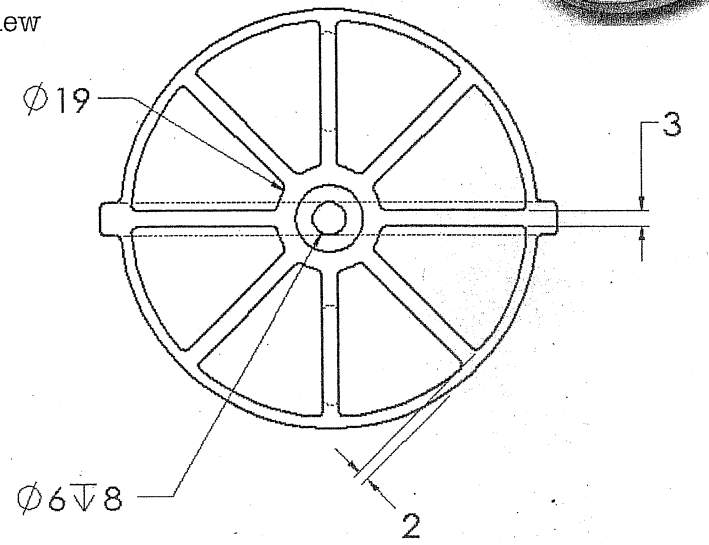
Exercise

1. Create the part below using the information provided.

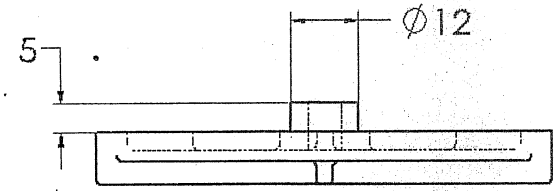
   - Part is symmetrical.
   - Ribs are equally spaced.
   - All fillets and rounds are 1mm.



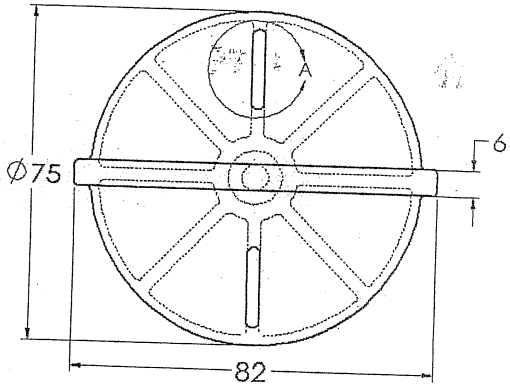
Top View



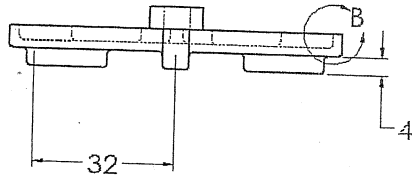
Front View



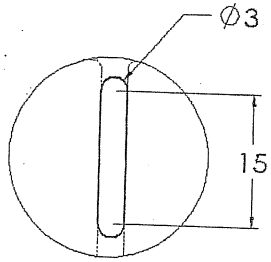
Bottom View



Right View

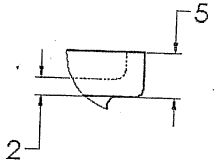


Detail A



DETAIL A
SCALE 4 : 1

Detail B



DETAIL B
SCALE 4 : 1

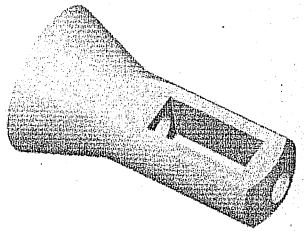
Exercise

1. Use the information below to complete the part.

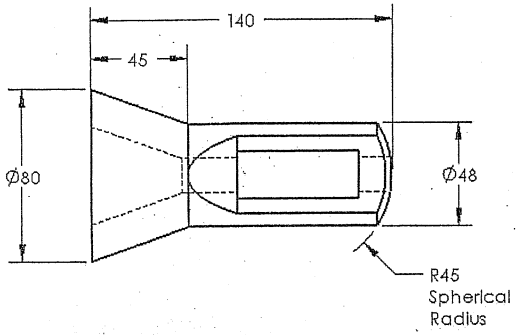
   The part is symmetrical.

   The centre hole is Through All.

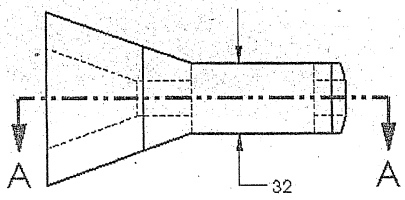
   All units are in mm.



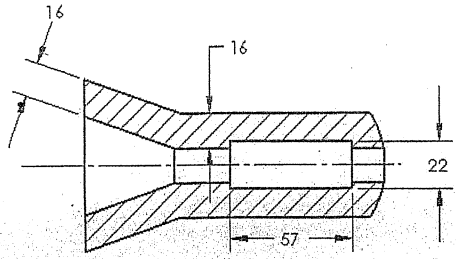
Top View



Front View



Section A-A

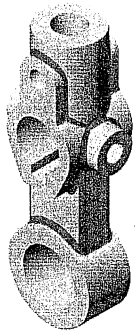


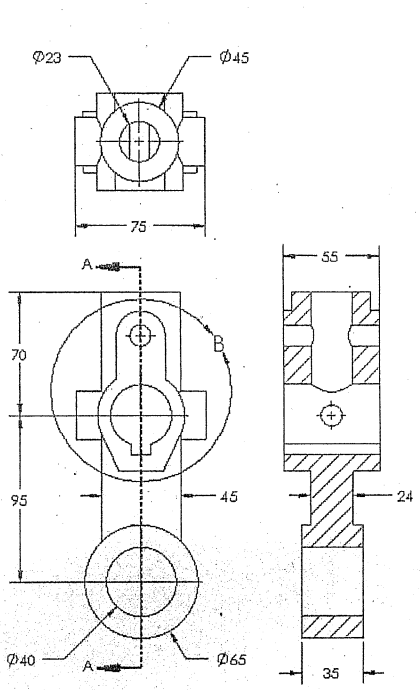
SECTION A-A

Exercise

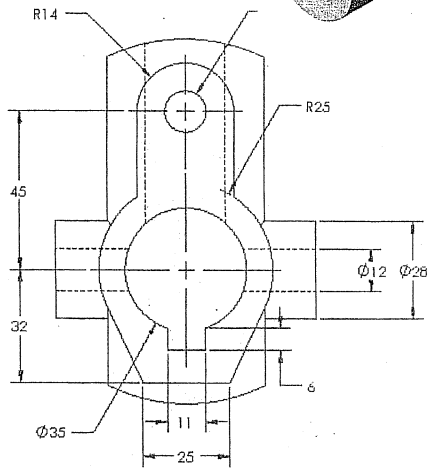
1. The part below is symmetrical.
   Front holes are on the centreline.
   All fillets and rounds (highlighted red to the right) are radius 3mm unless stated.
   Centre holes in Front & Right share a common centre point.

2. Create the model below. All dimensions are in mm.





SECTION A-A



DETAIL B
SCALE 1 : 1