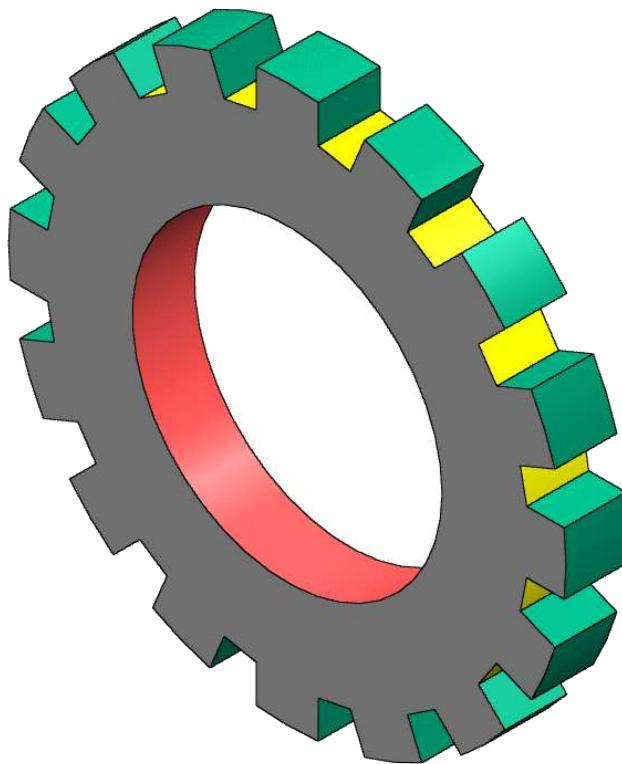


# **FREECAD EXERCISES**

**200 PRACTICE EXERCISES**

**For FreeCAD and Other Feature-Based  
3D Modeling Software**



**200 Practice Exercises, 3D Models & Drawings  
For Beginner, Intermediate and Advance users**

**Sachidanand Jha**

# **FREECAD EXERCISES**

200 PRACTICE EXERCISES

SACHIDANAND JHA



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Sachidanand Jha  
Founder & CEO, CADin360



# **FREECAD EXERCISES**

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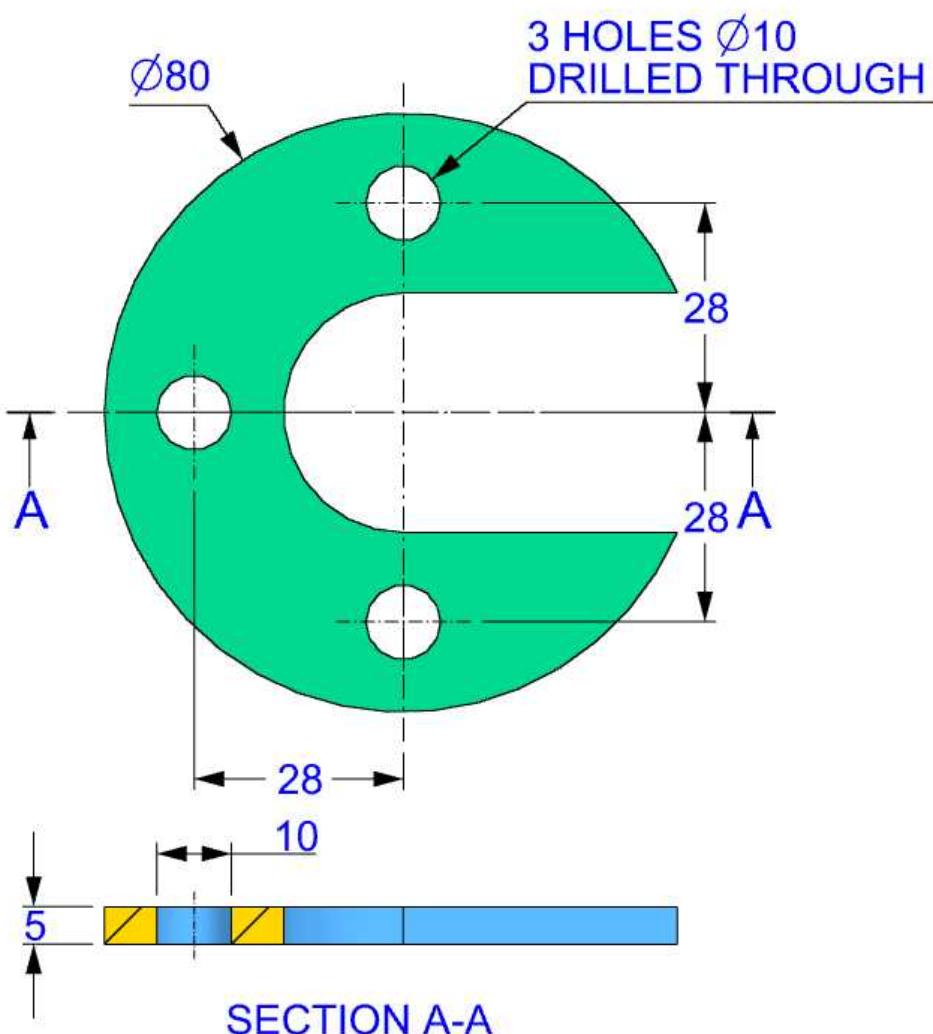
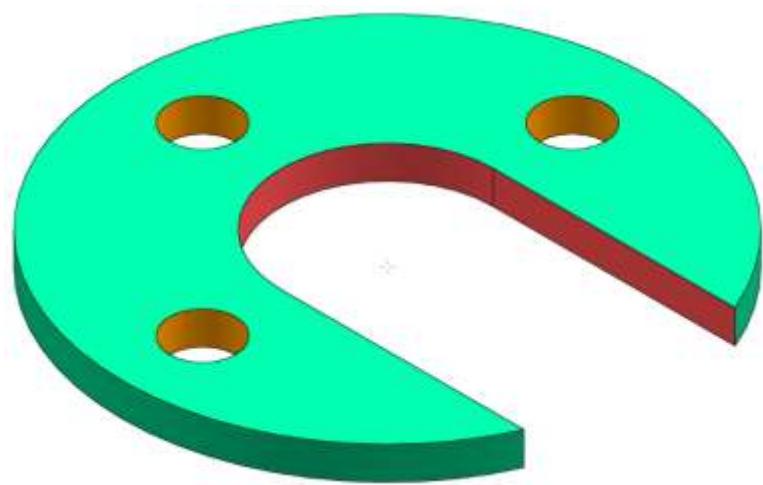
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# Preface

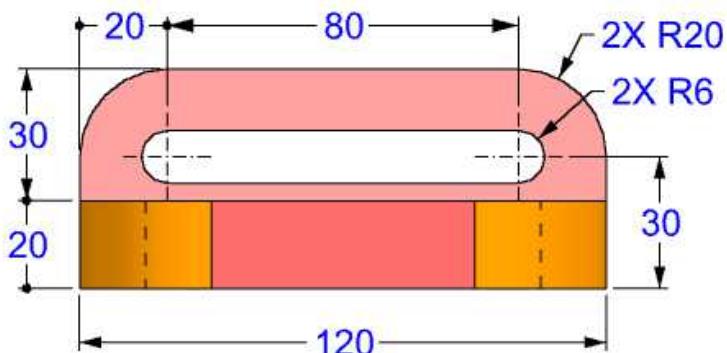
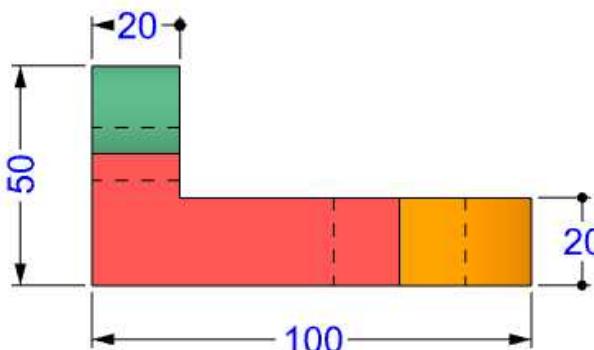
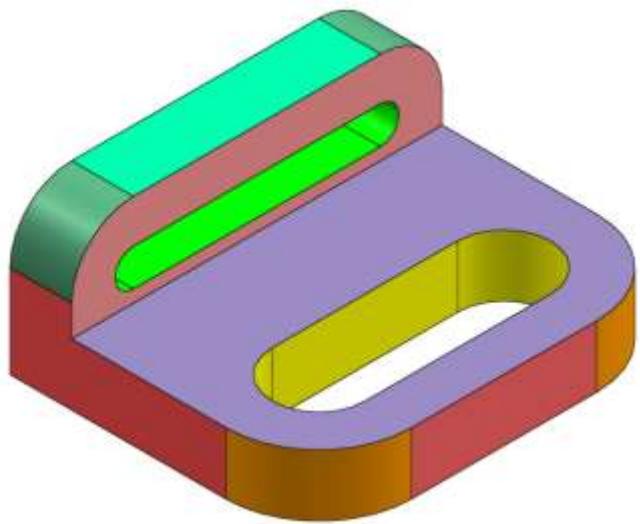
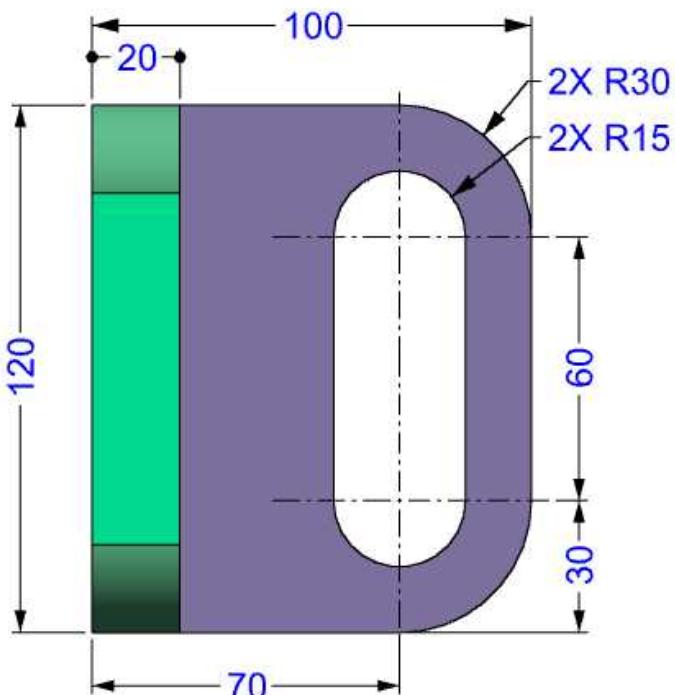
## **FREECAD EXERCISES**

- ❖ This book contain 200 3D CAD practice exercises and drawings.
- ❖ This book does not provide step by step tutorial to design 3D models.
- ❖ Predominantly used Third Angle Projection.
- ❖ This book is for **FREECAD** and Other Feature-Based 3d Modeling Software such as Inventor, Catia, SolidWorks, NX, Solid Edge, AutoCAD, PTC Creo etc.
- ❖ It is intended to provide Drafters, Designers and Engineers with enough CAD exercises for practice on **FREECAD**.
- ❖ It includes almost all types of exercises that are necessary to provide, clear, concise and systematic information required on industrial machine part drawings.
- ❖ Third Angle Projection is intentionally used to familiarize Drafters, Designers and Engineers in Third Angle Projection to meet the expectation of world wide Engineering drawing print.
- ❖ Clear and well drafted drawing help easy understanding of the design.
- ❖ This book is for Beginner, Intermediate and Advance CAD users.
- ❖ These exercises are from Basics to Advance level.
- ❖ Each exercises can be assigned and designed separately.
- ❖ No Exercise is a prerequisite for another. All dimensions are in mm.
- ❖ Note: Assume any missing dimensions

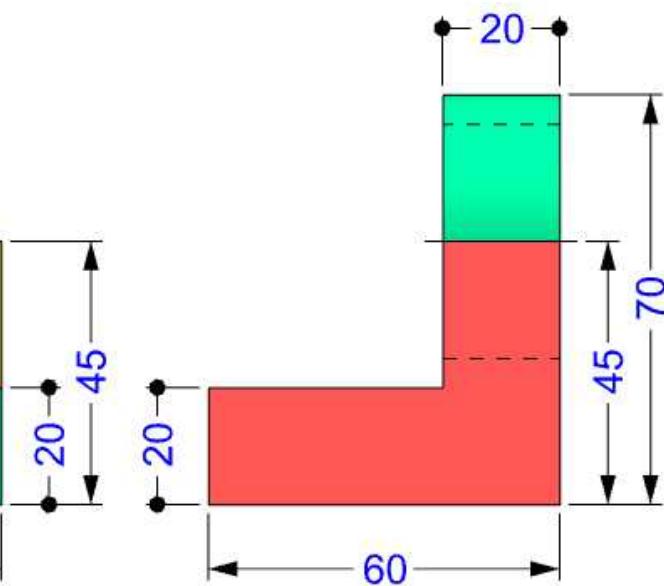
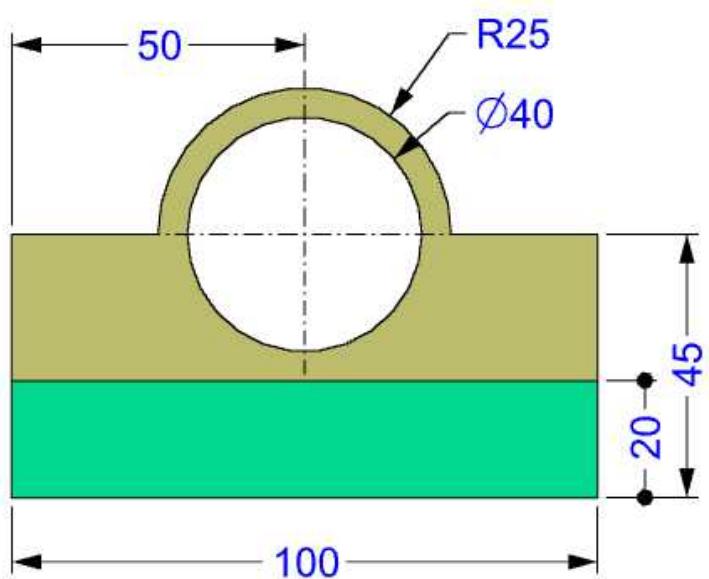
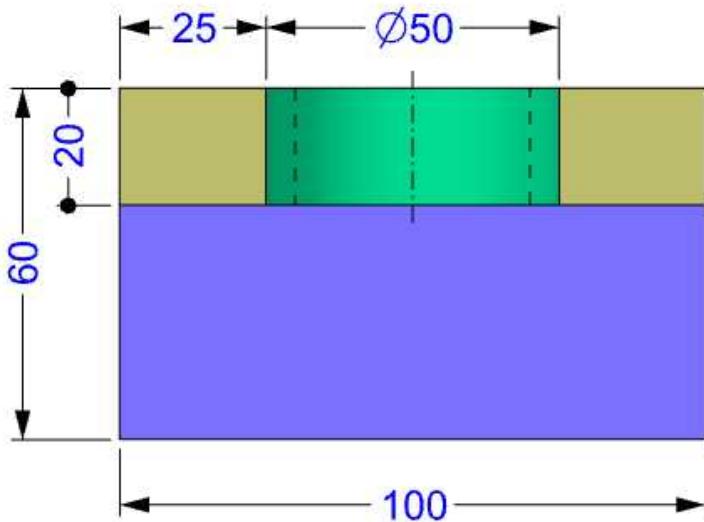
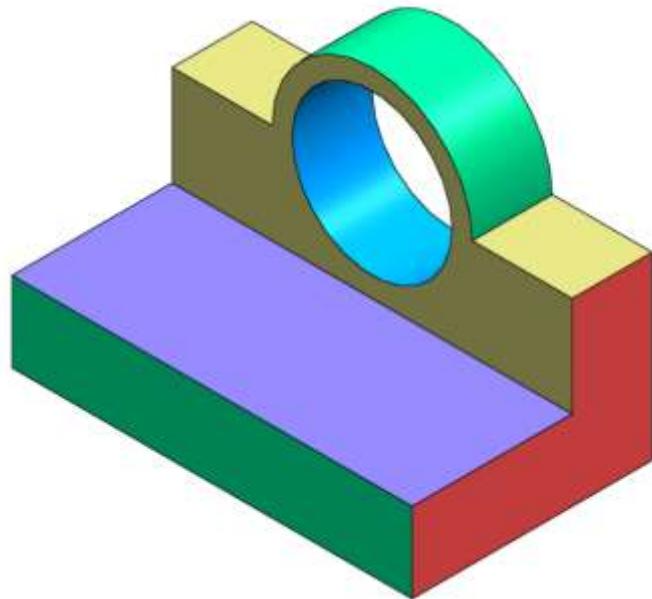
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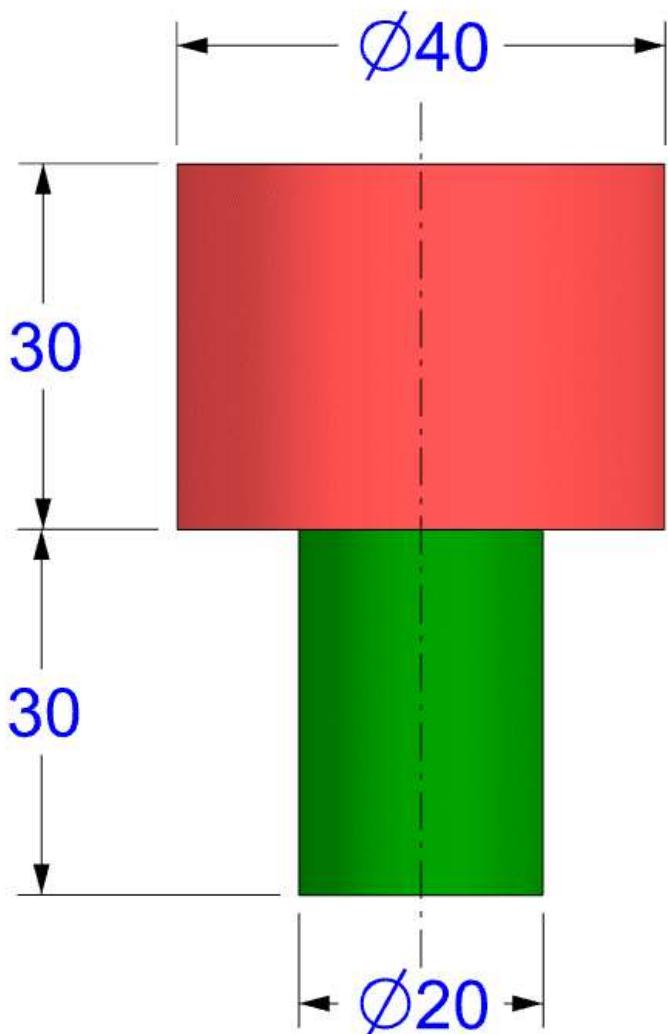
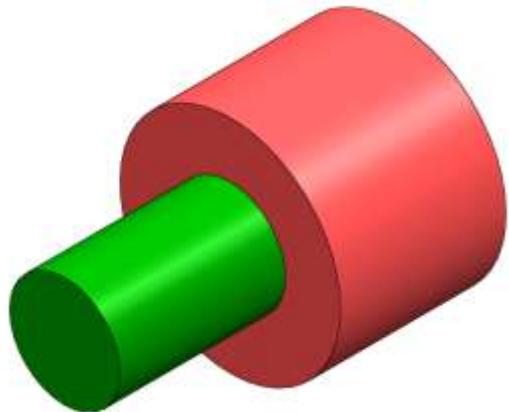
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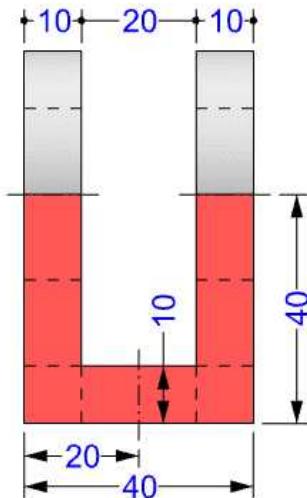
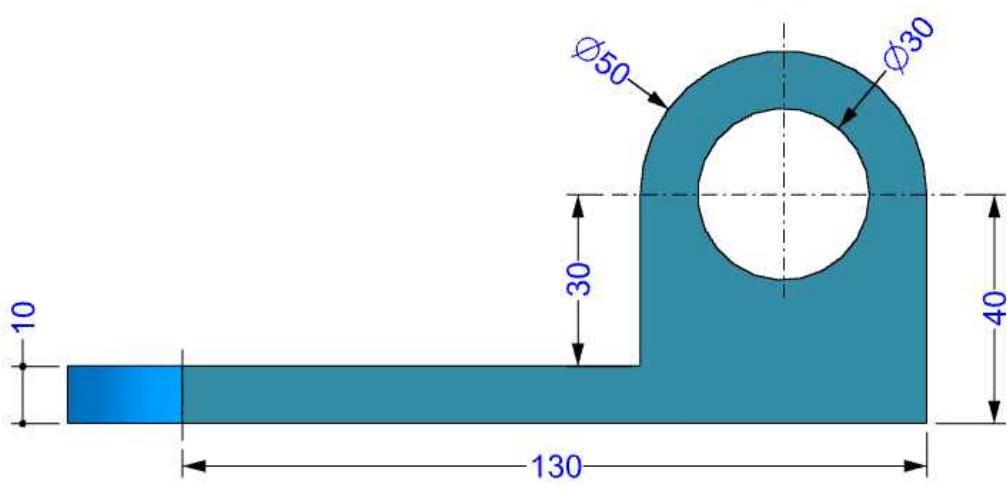
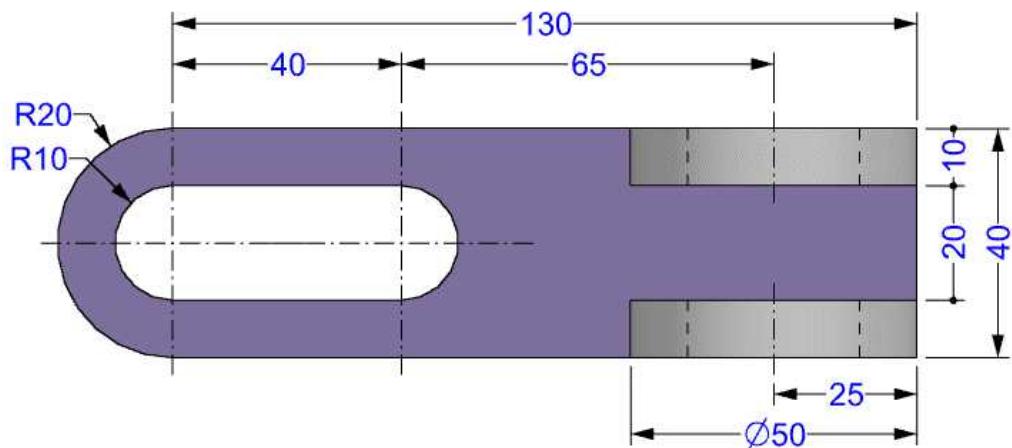
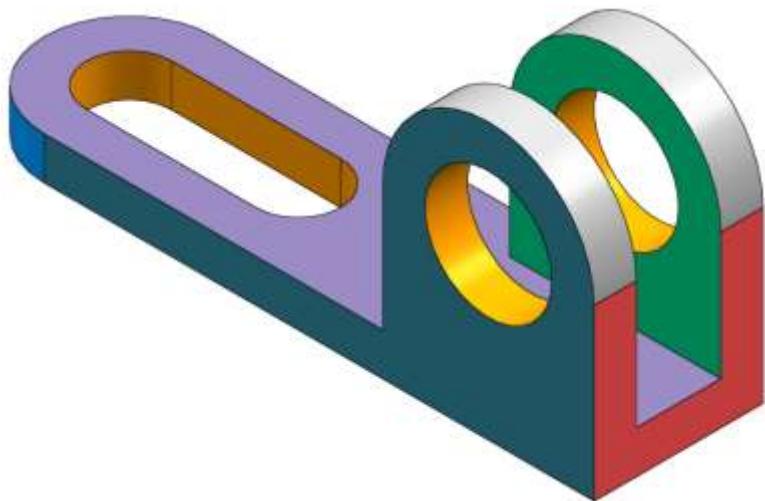
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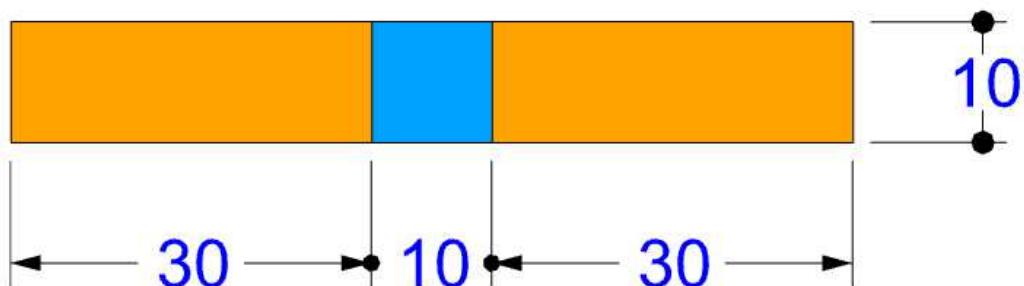
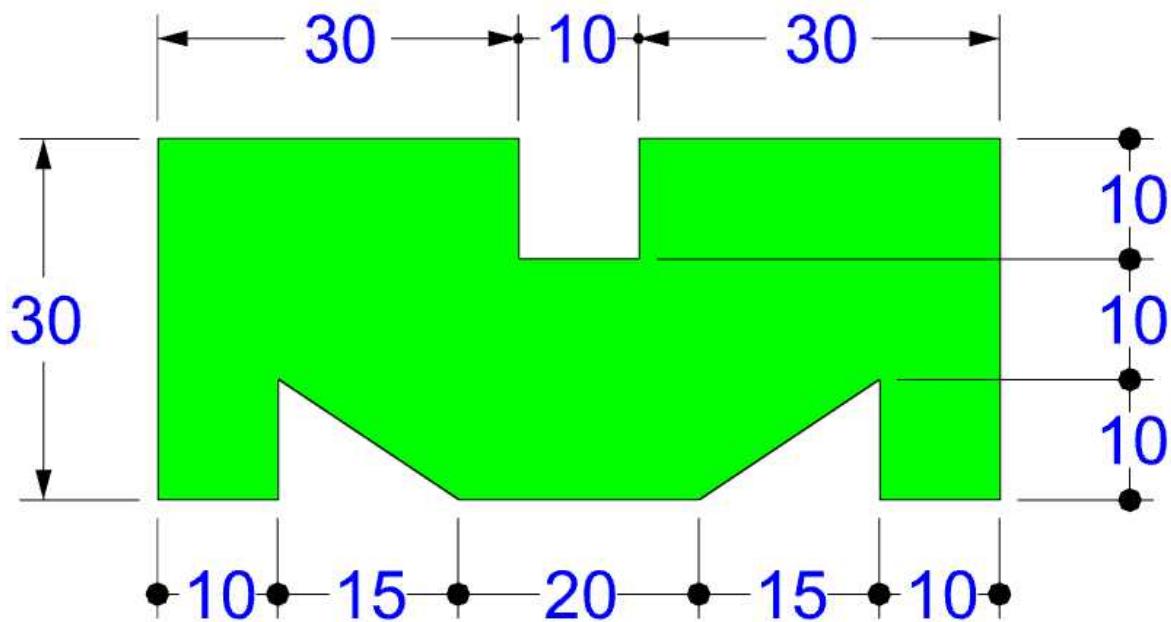
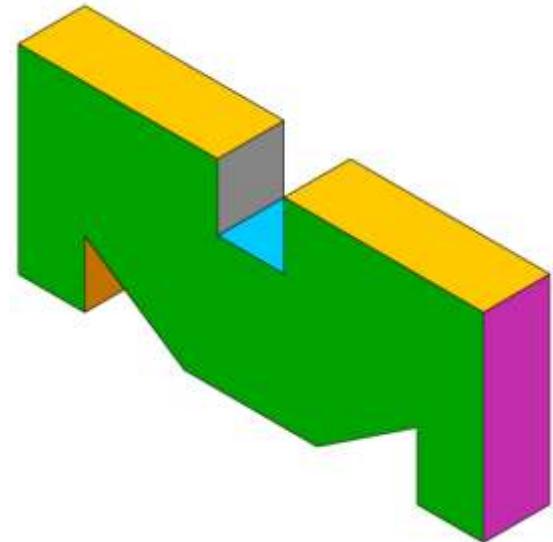
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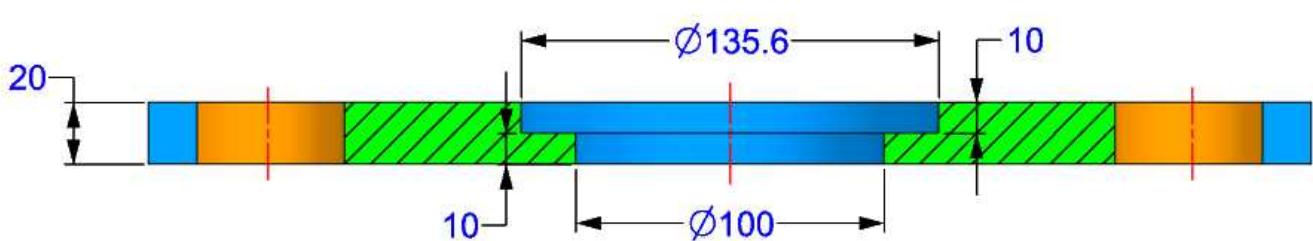
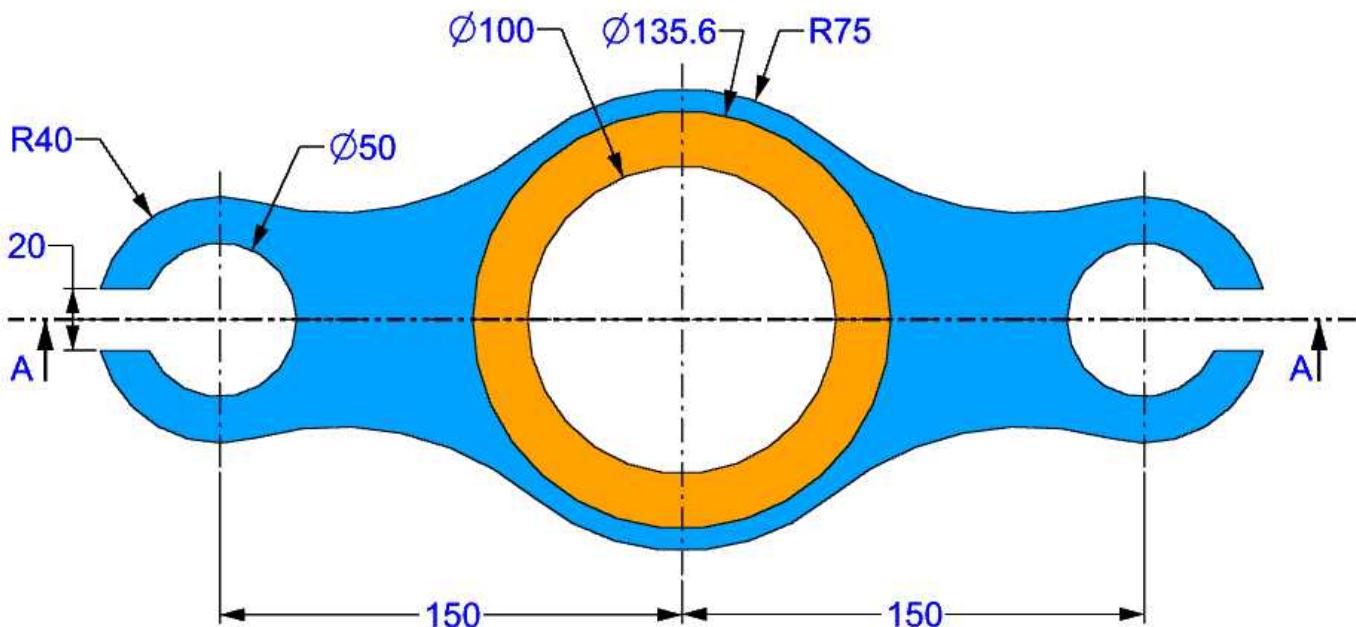
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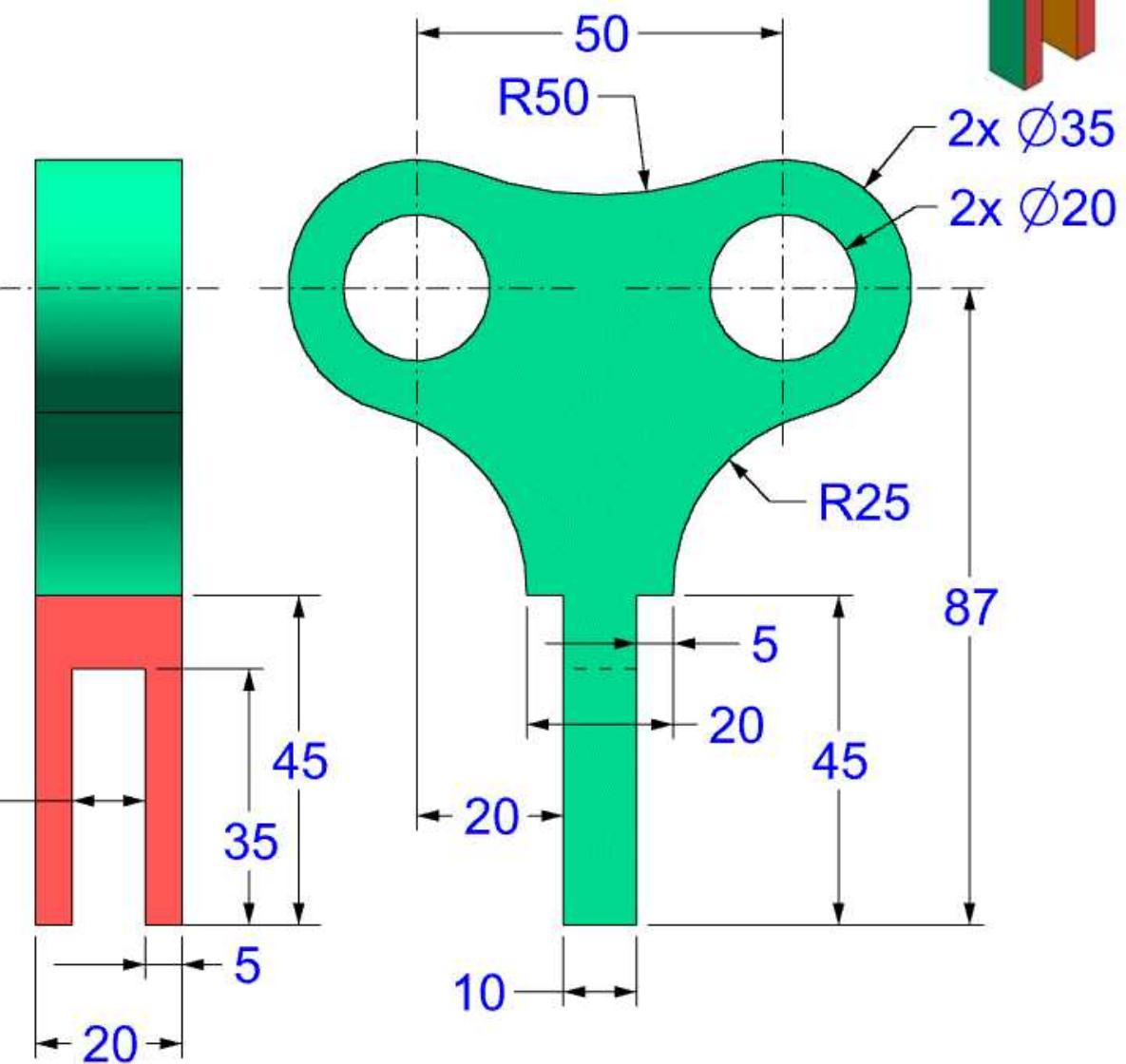


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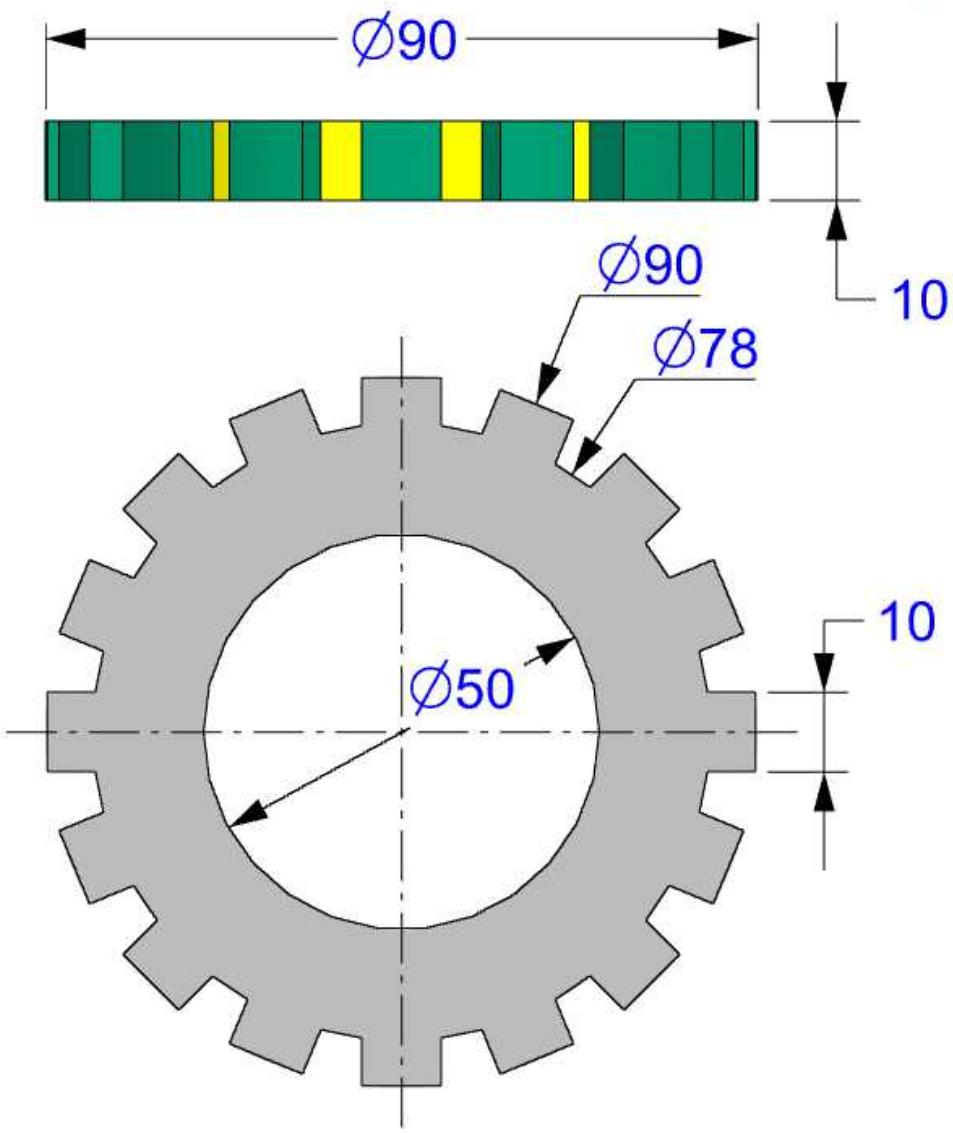
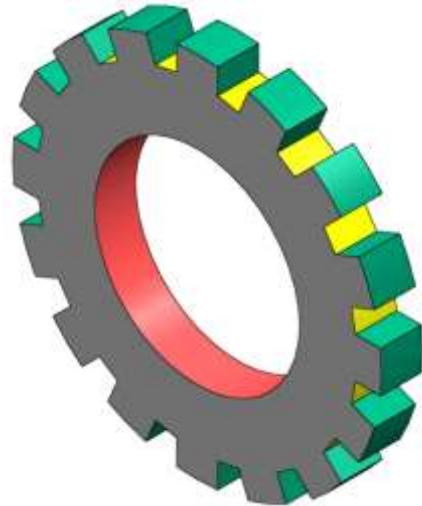


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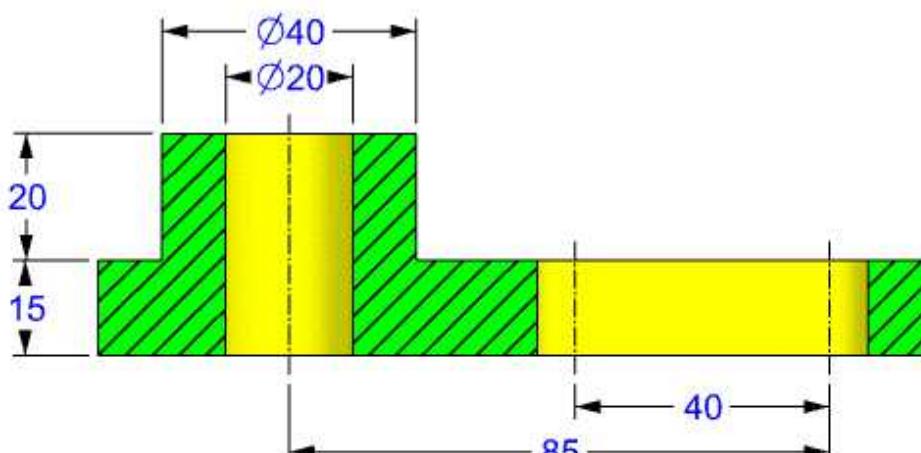
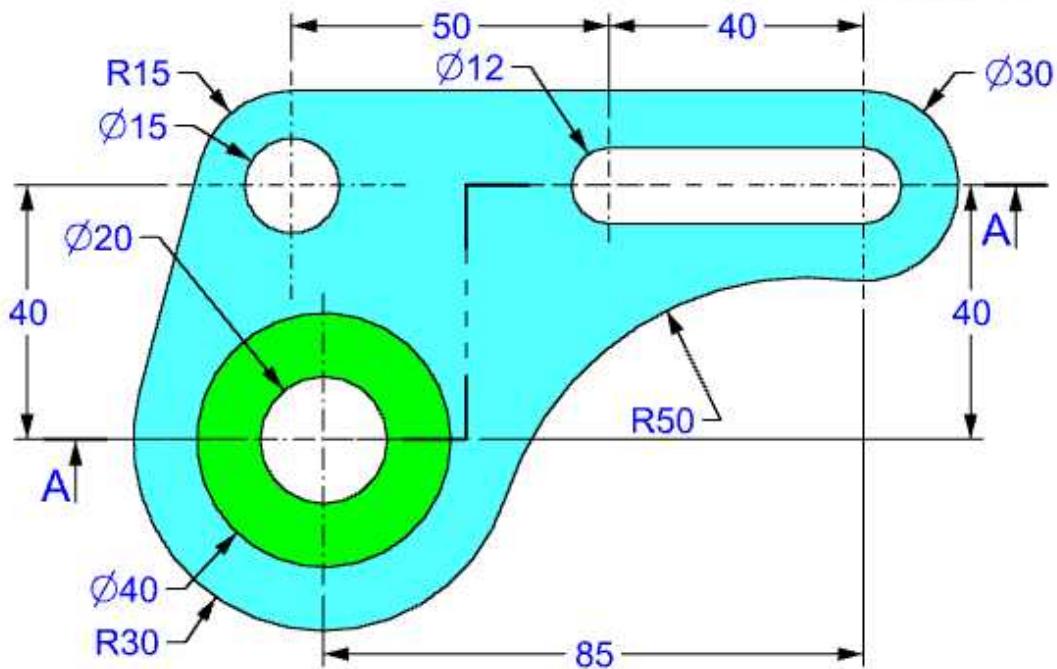
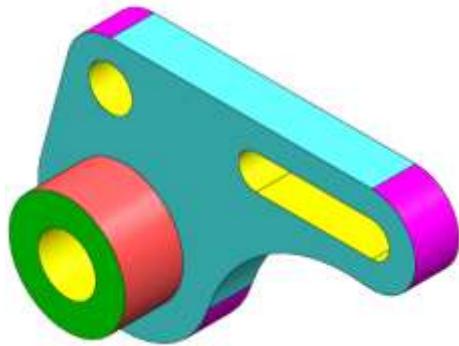
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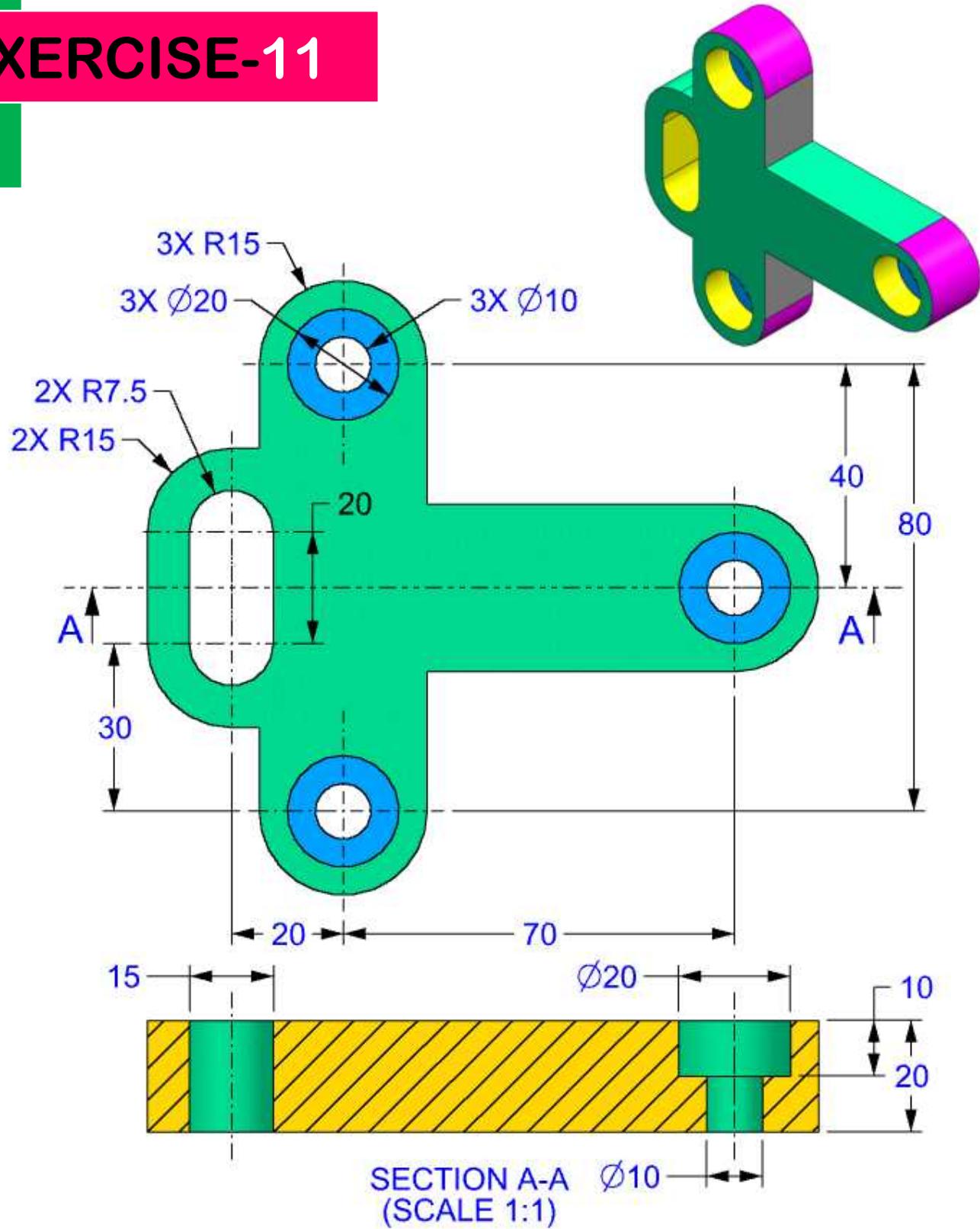


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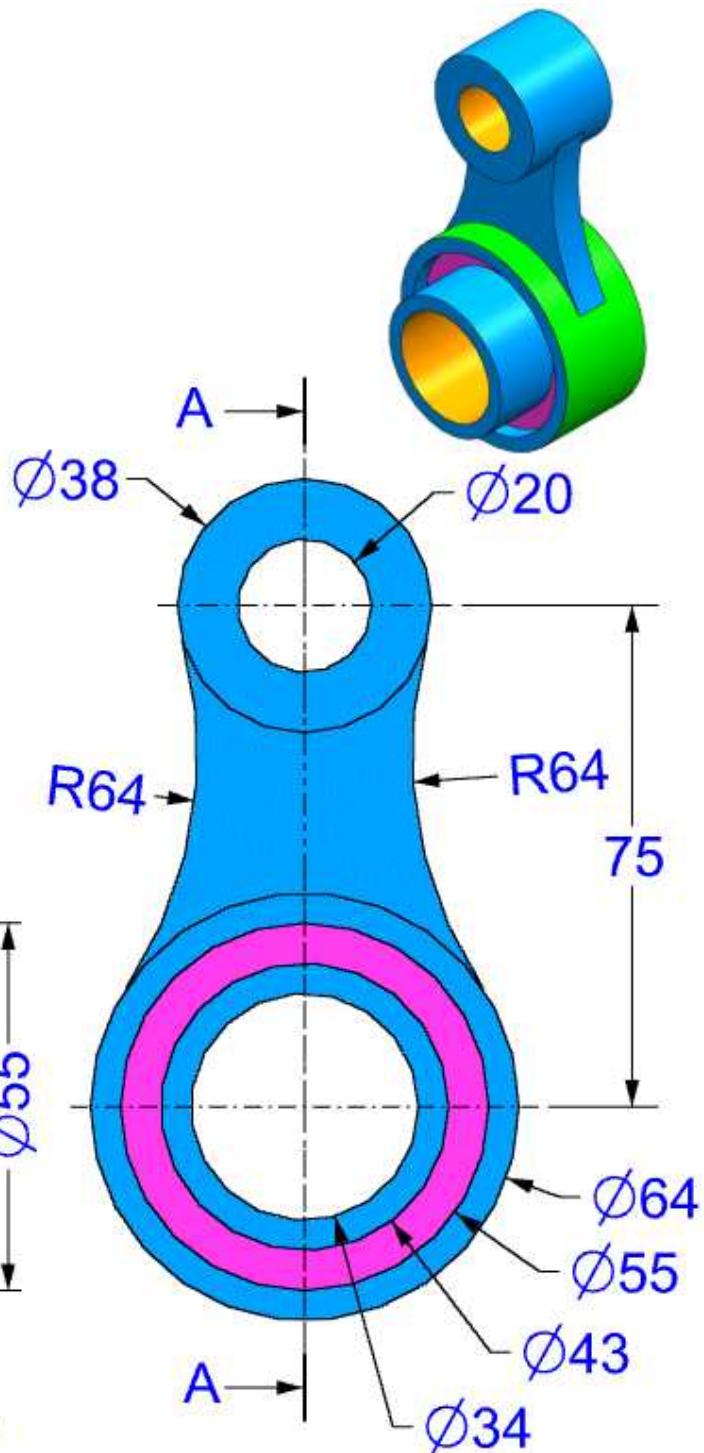
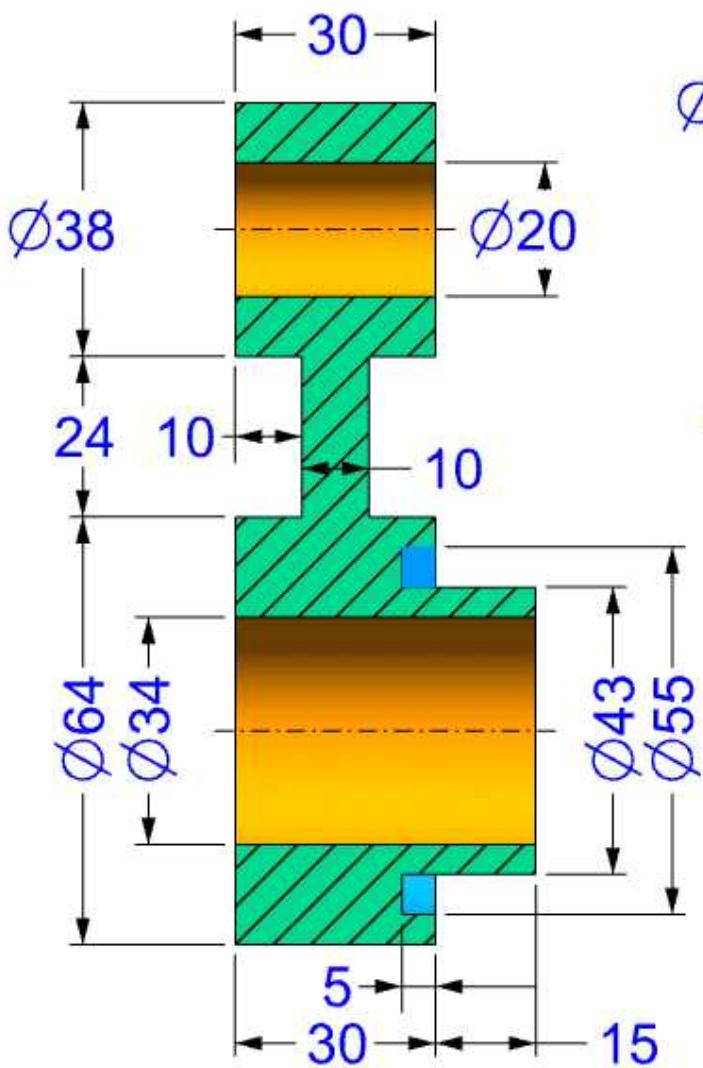


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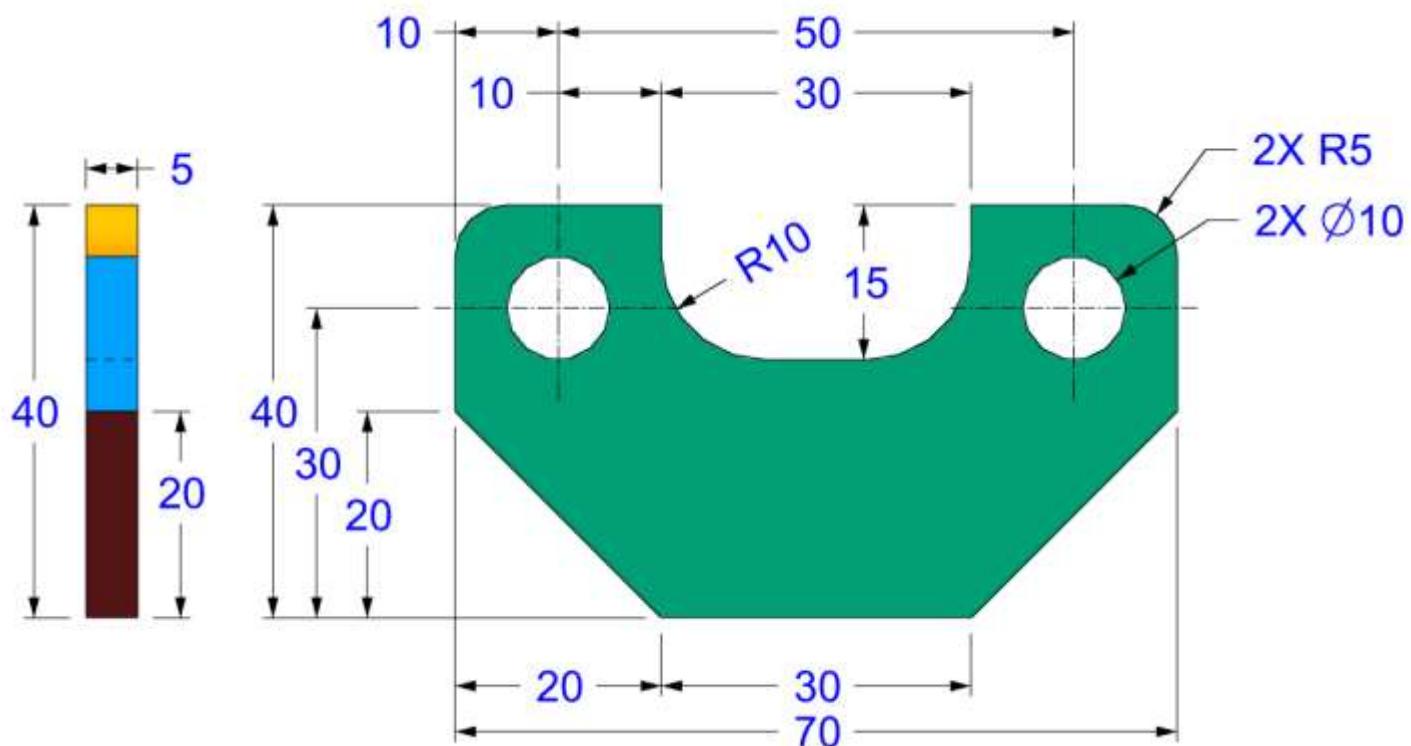
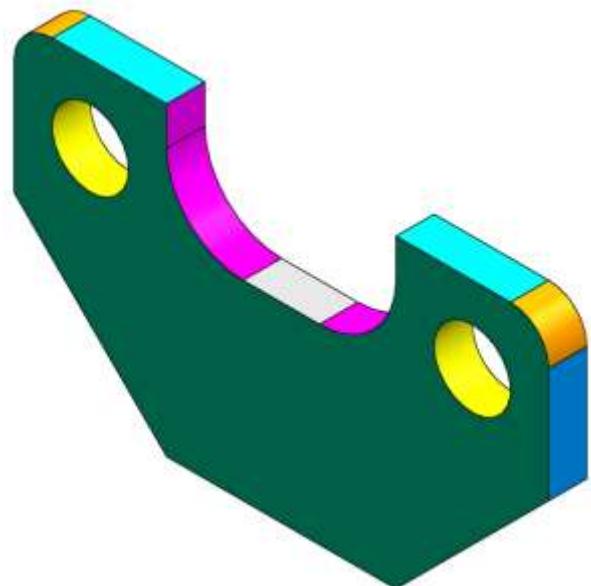


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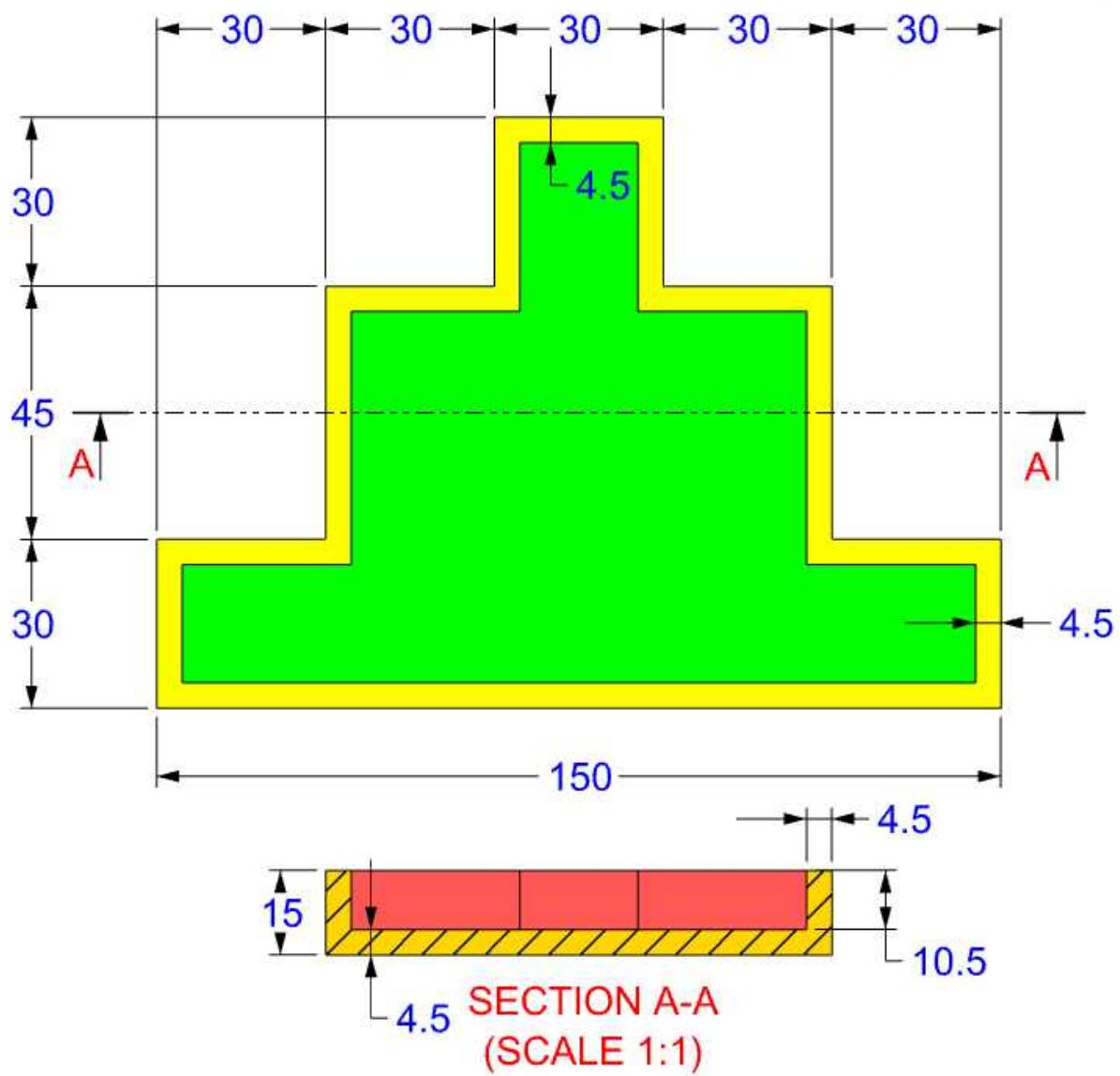
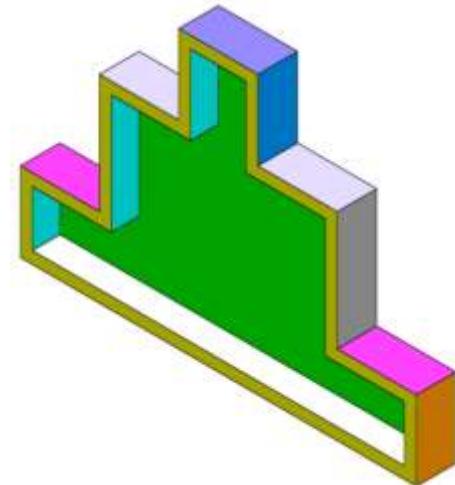


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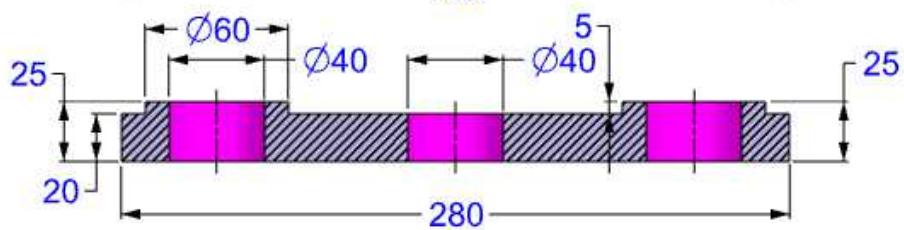
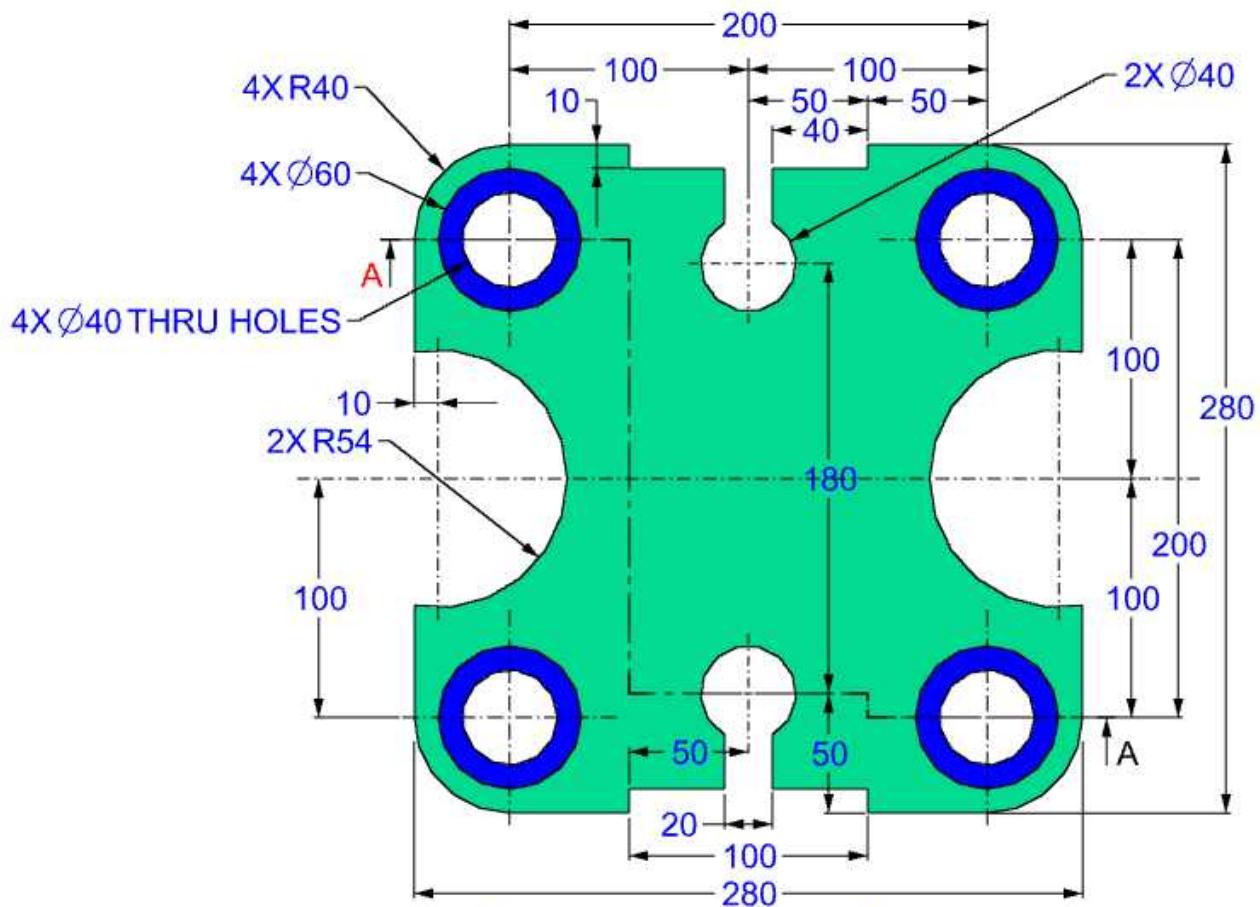
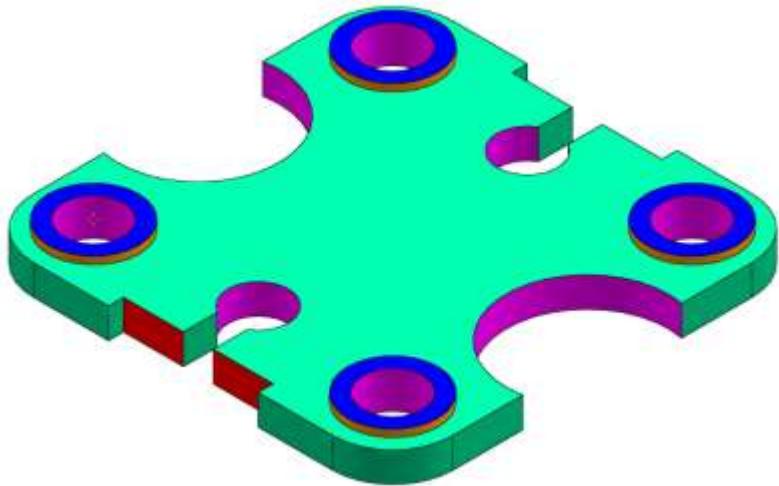
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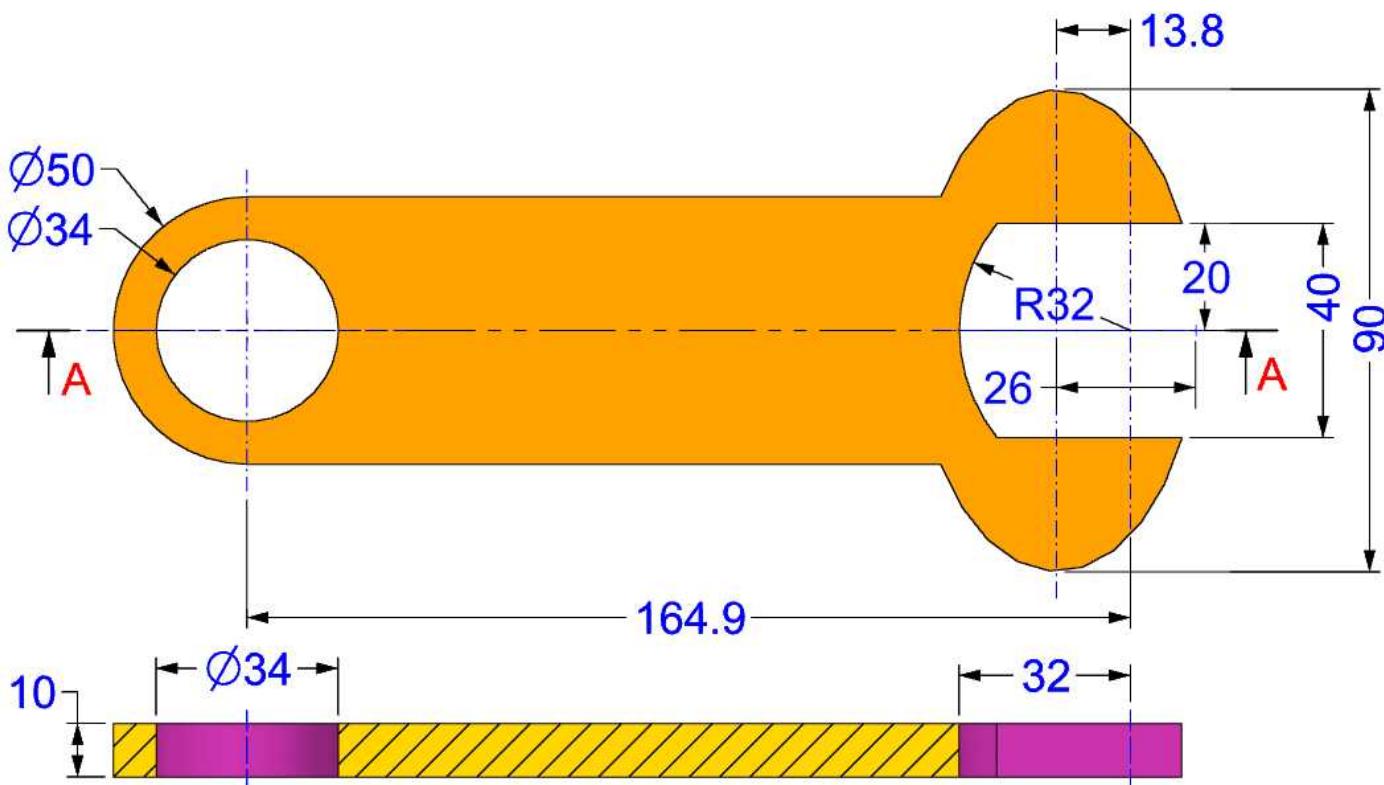
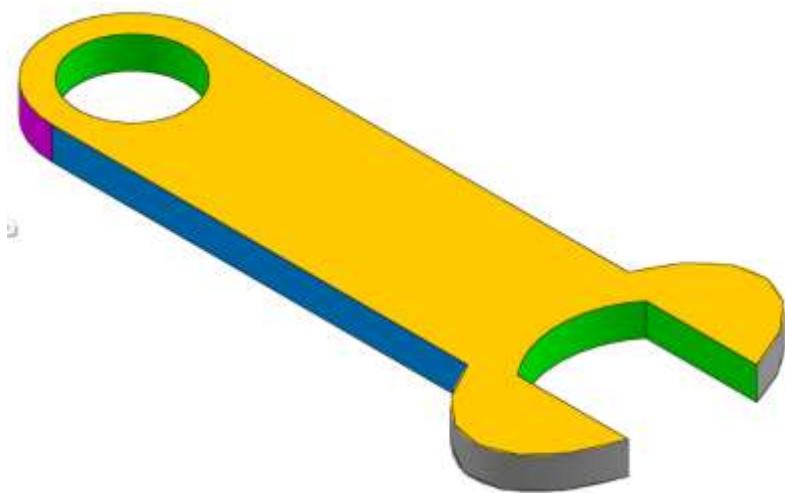
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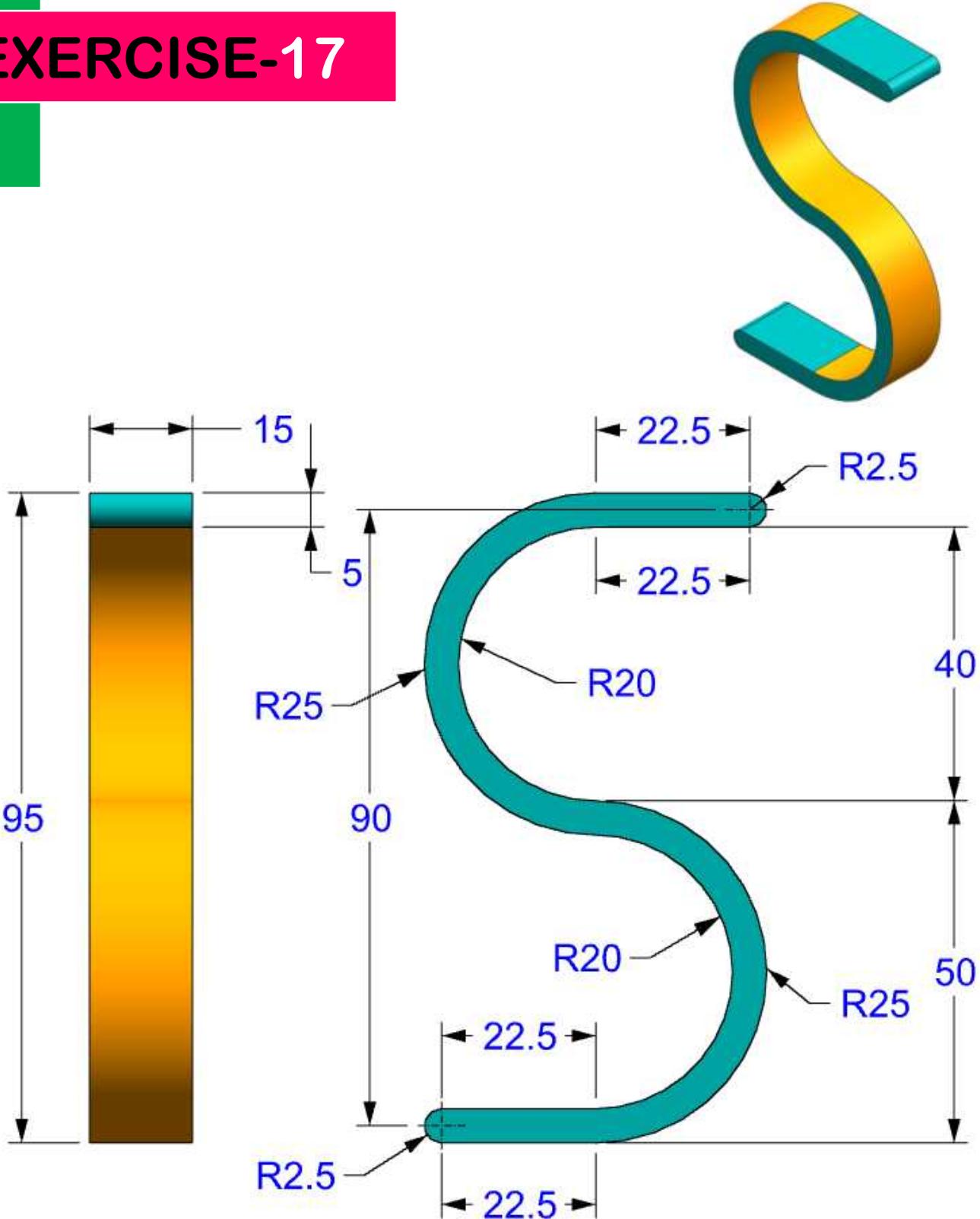


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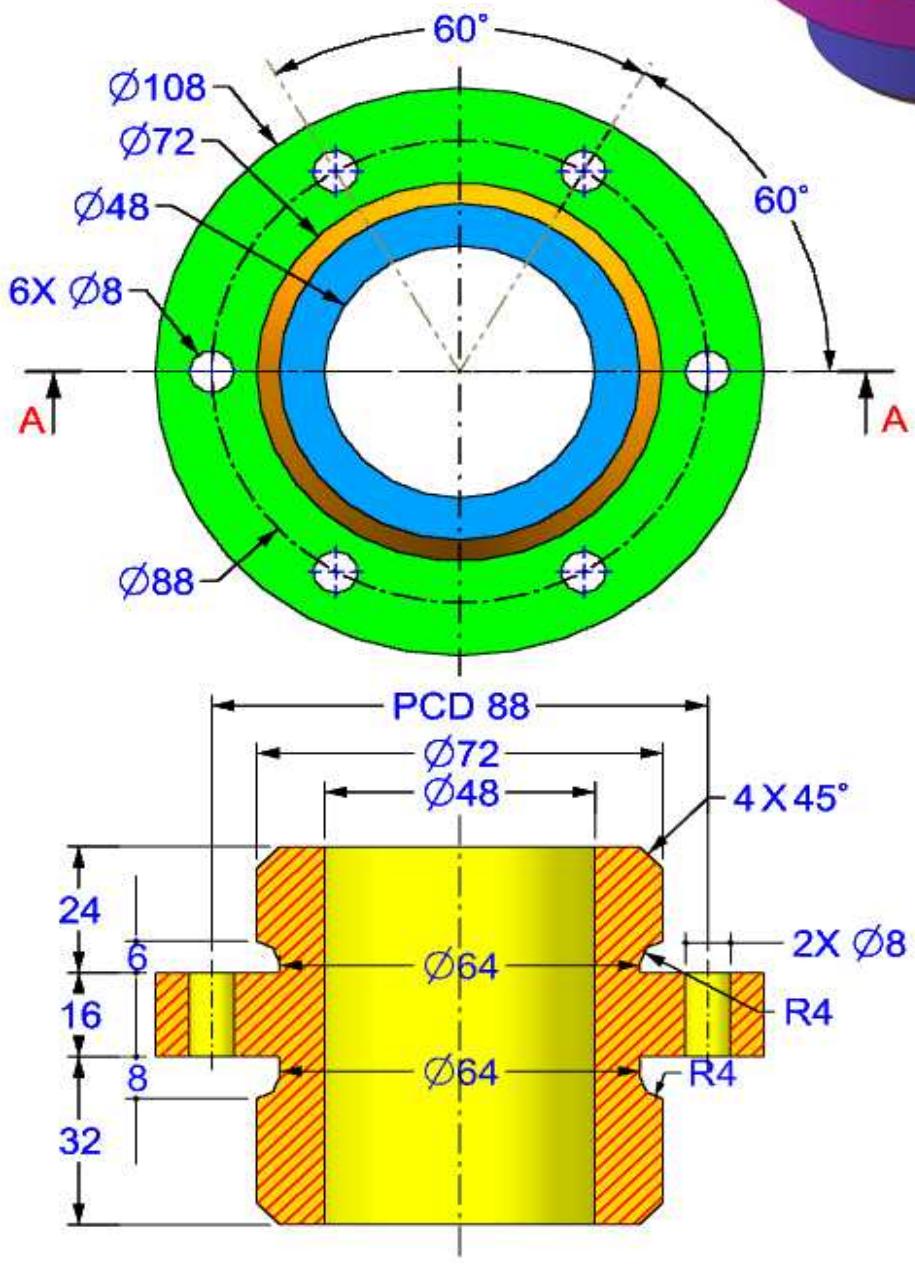


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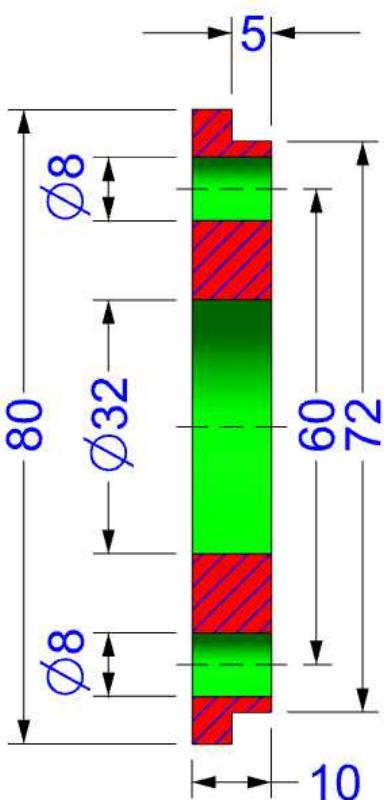
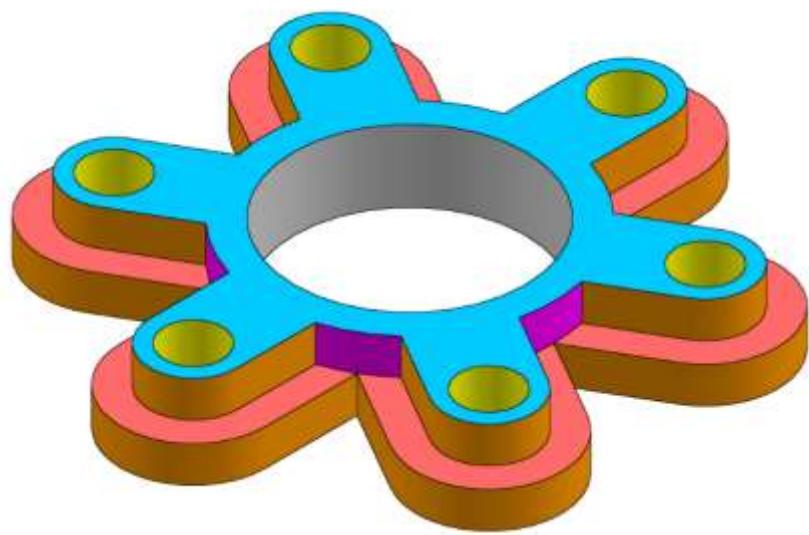


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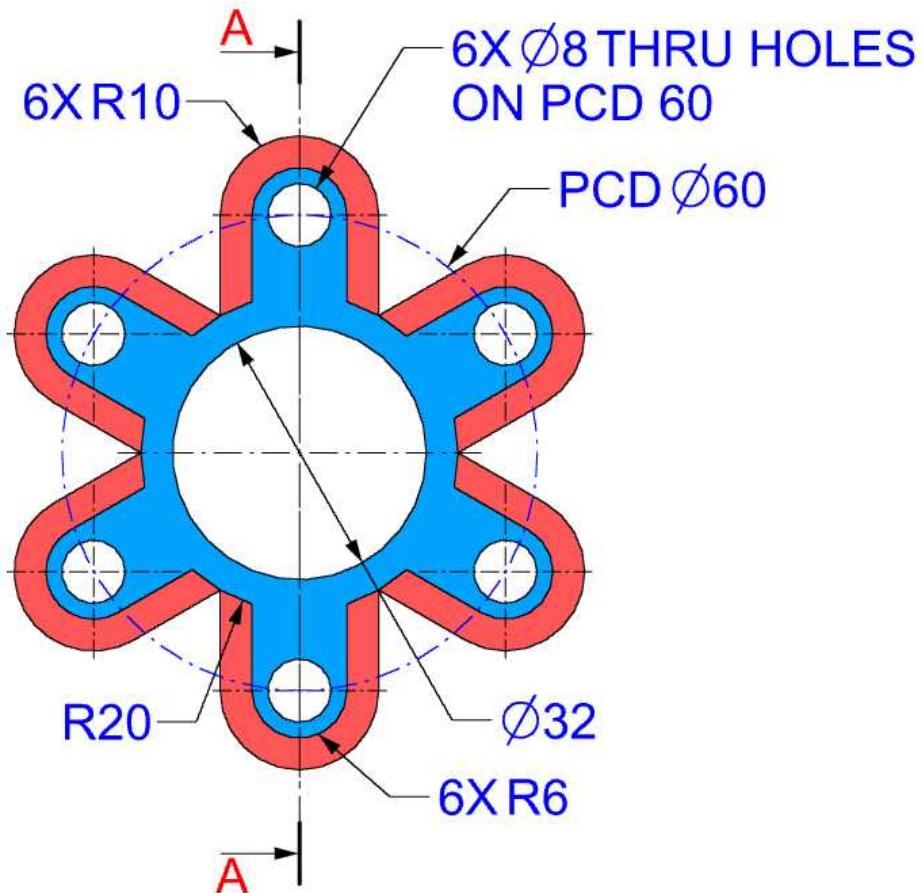


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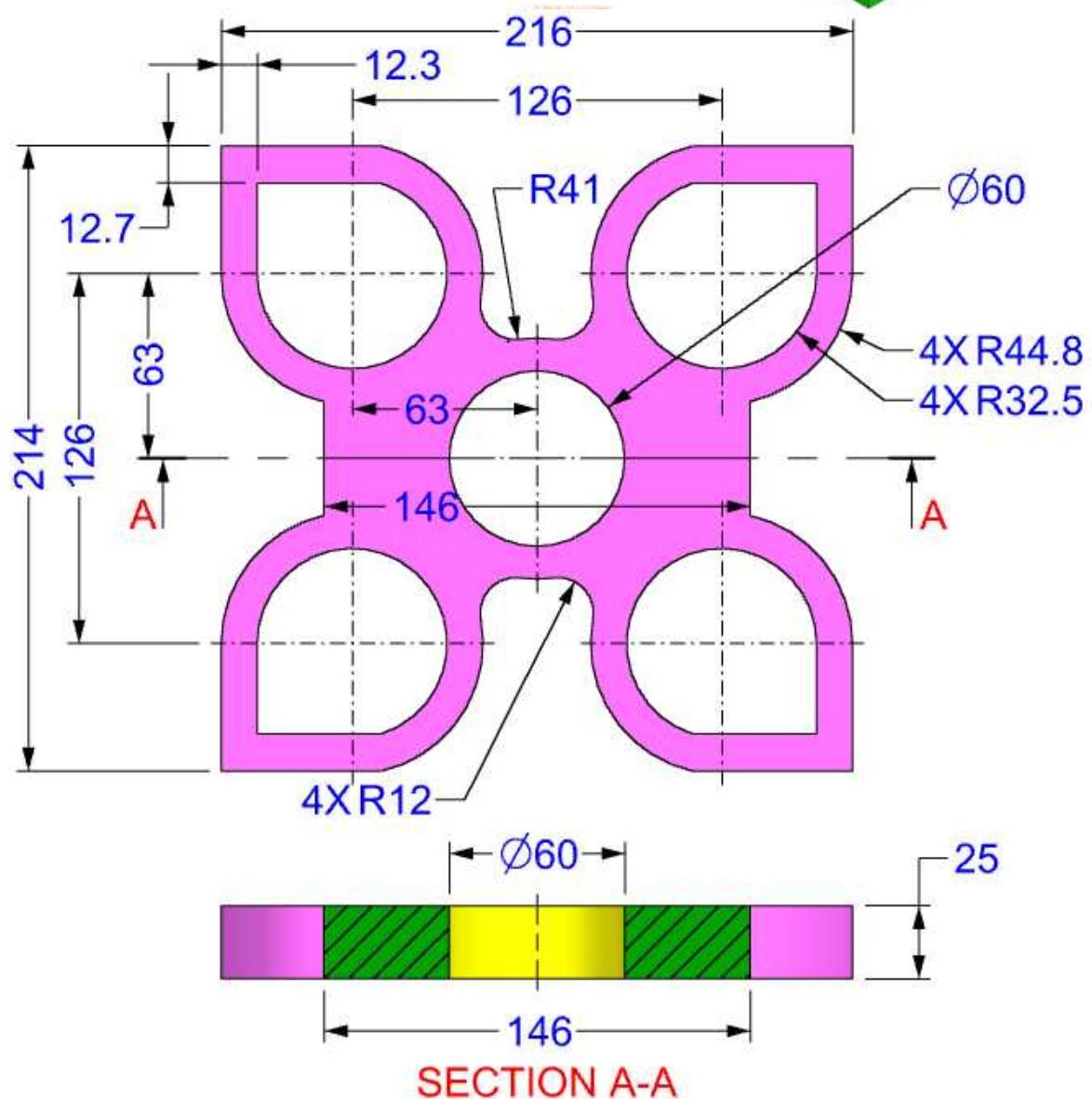
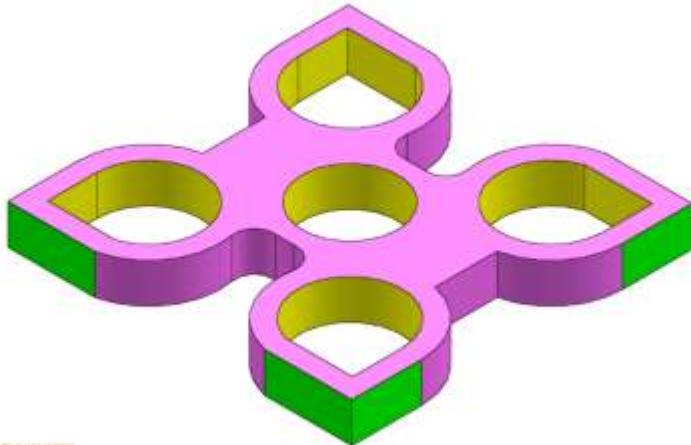
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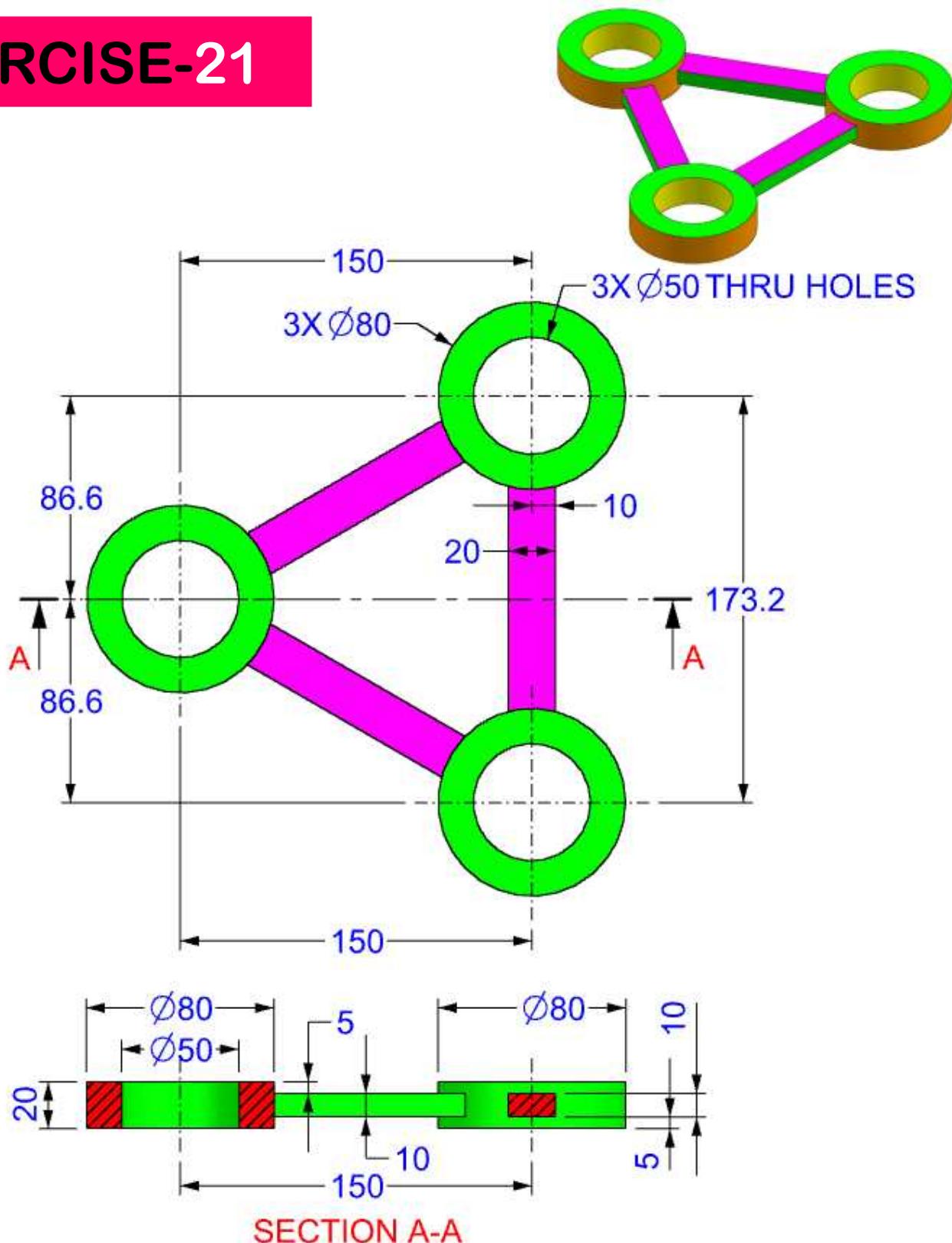
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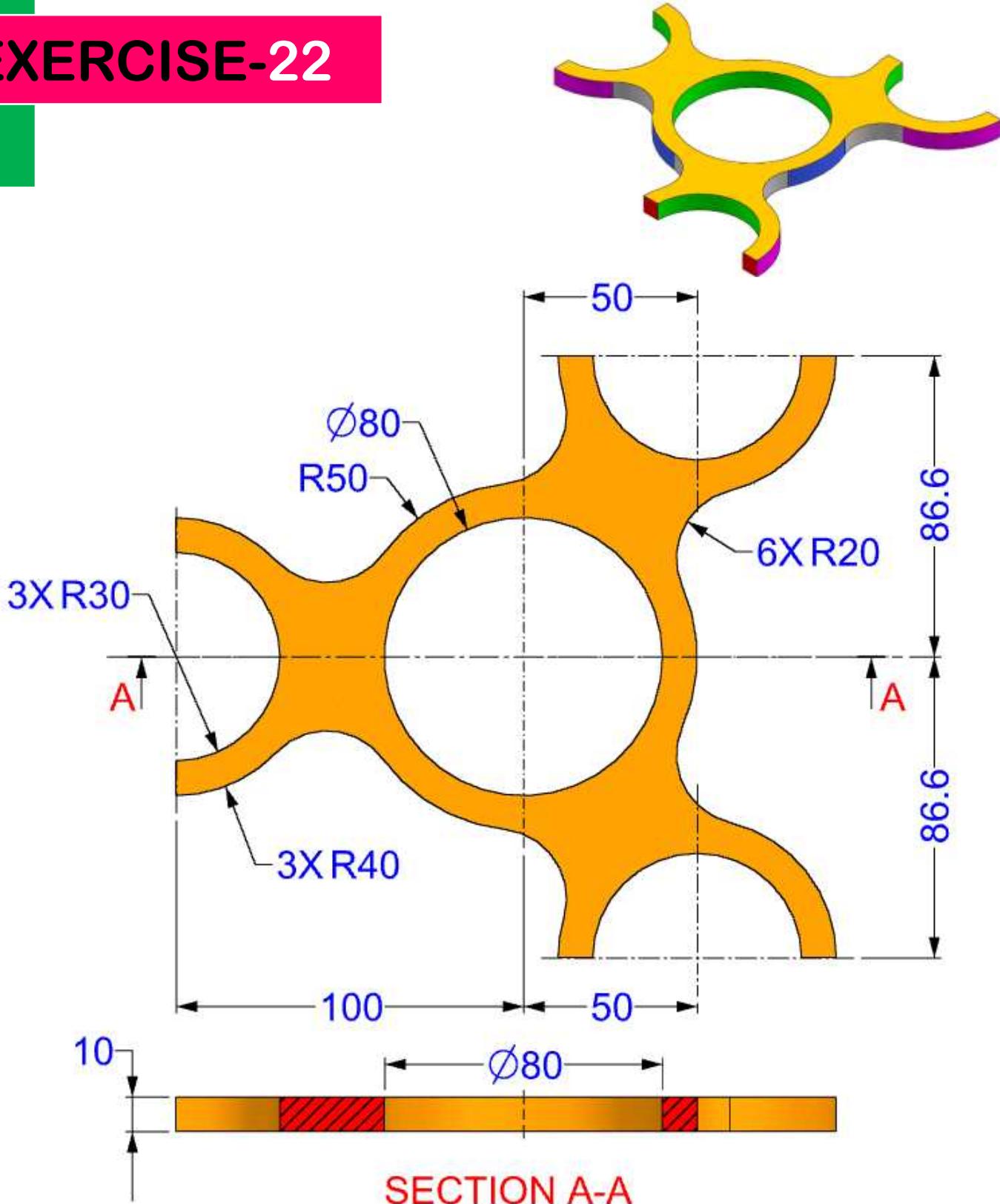
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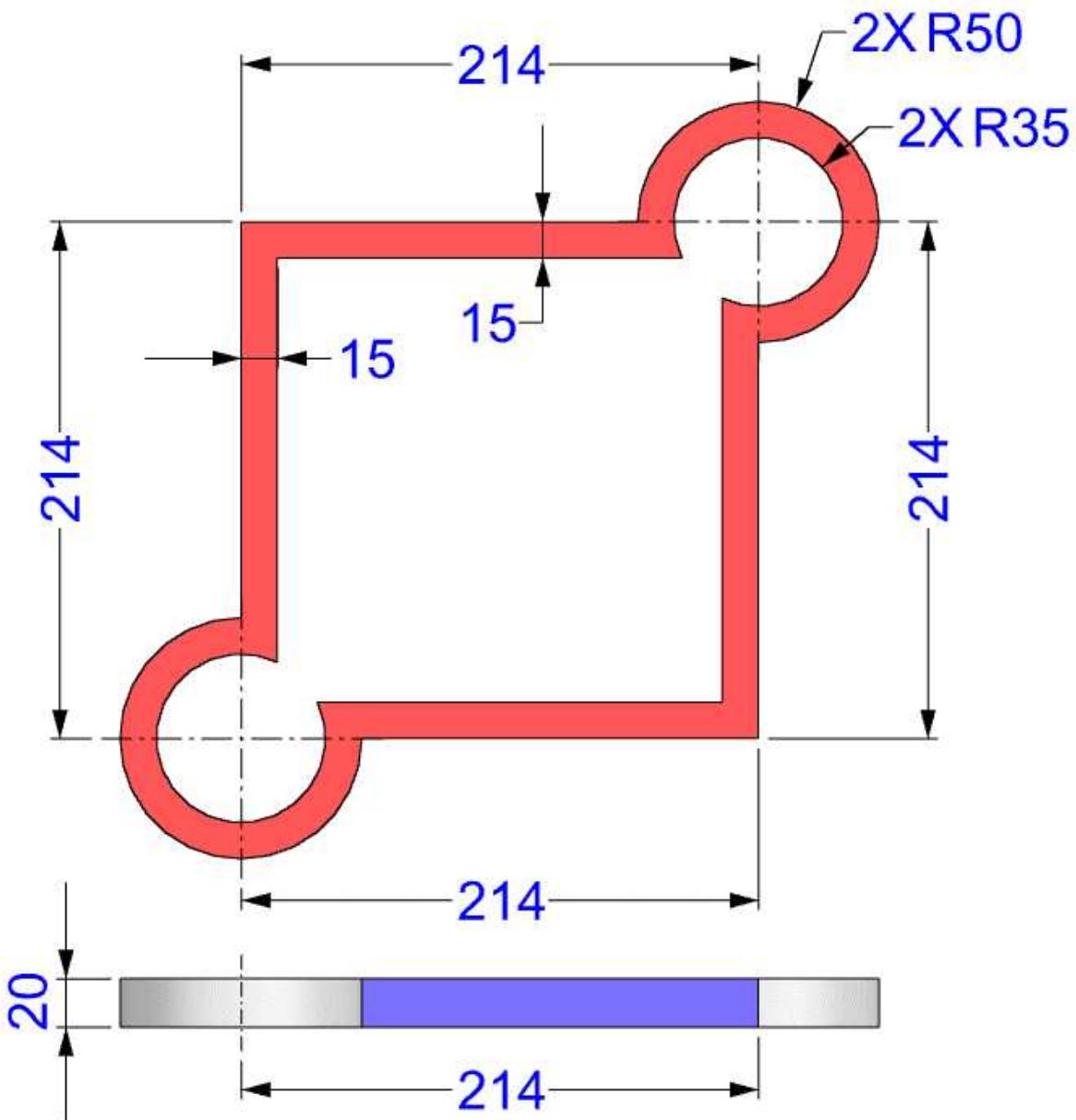
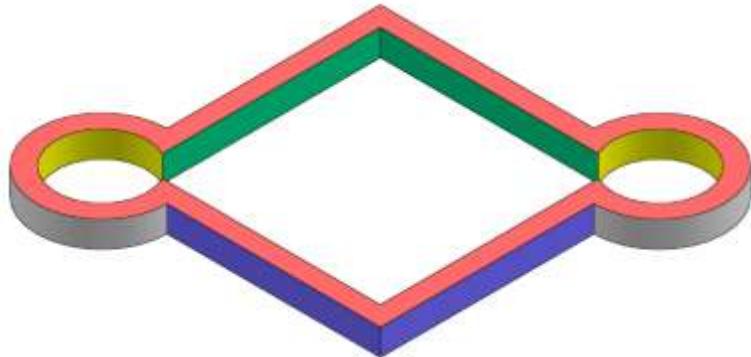
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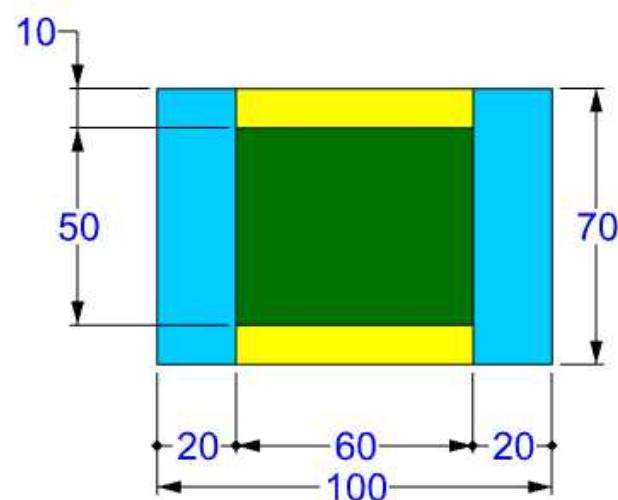
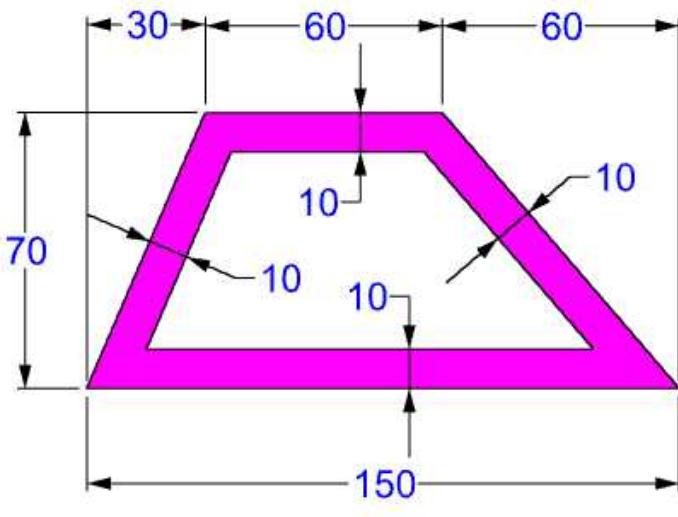
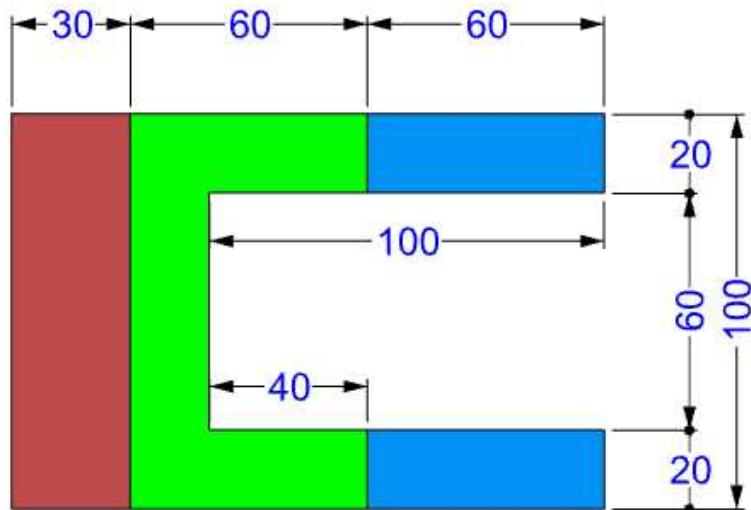
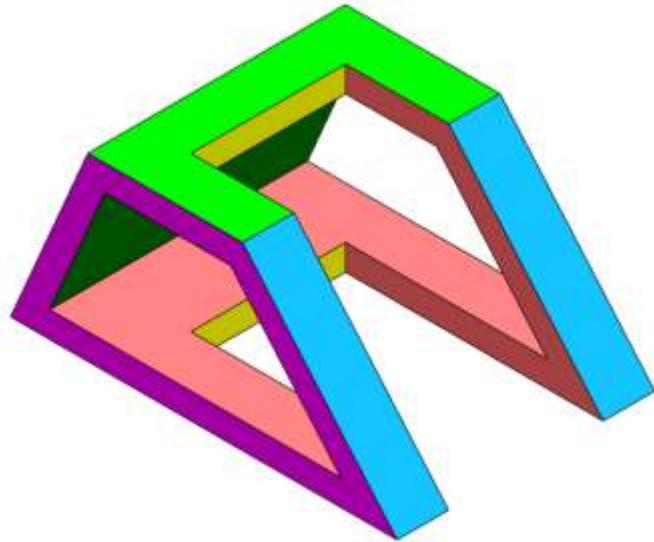
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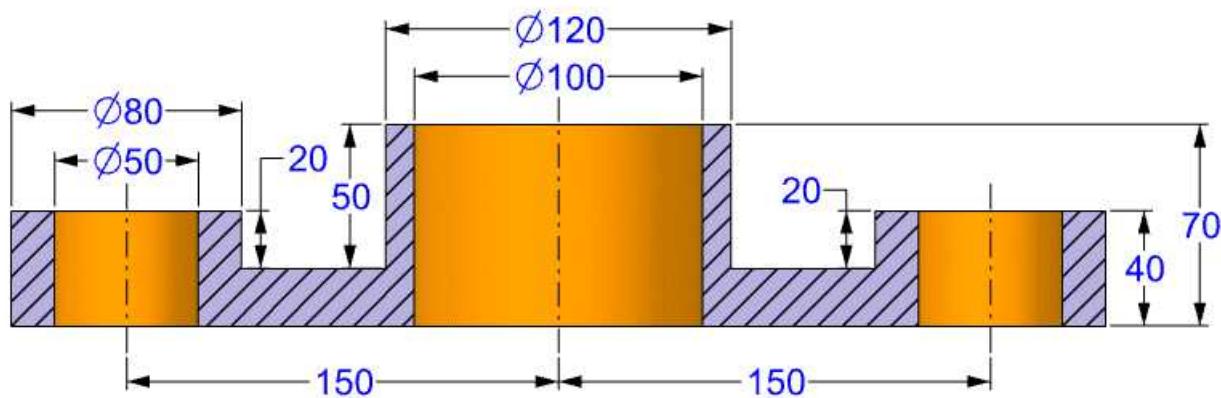
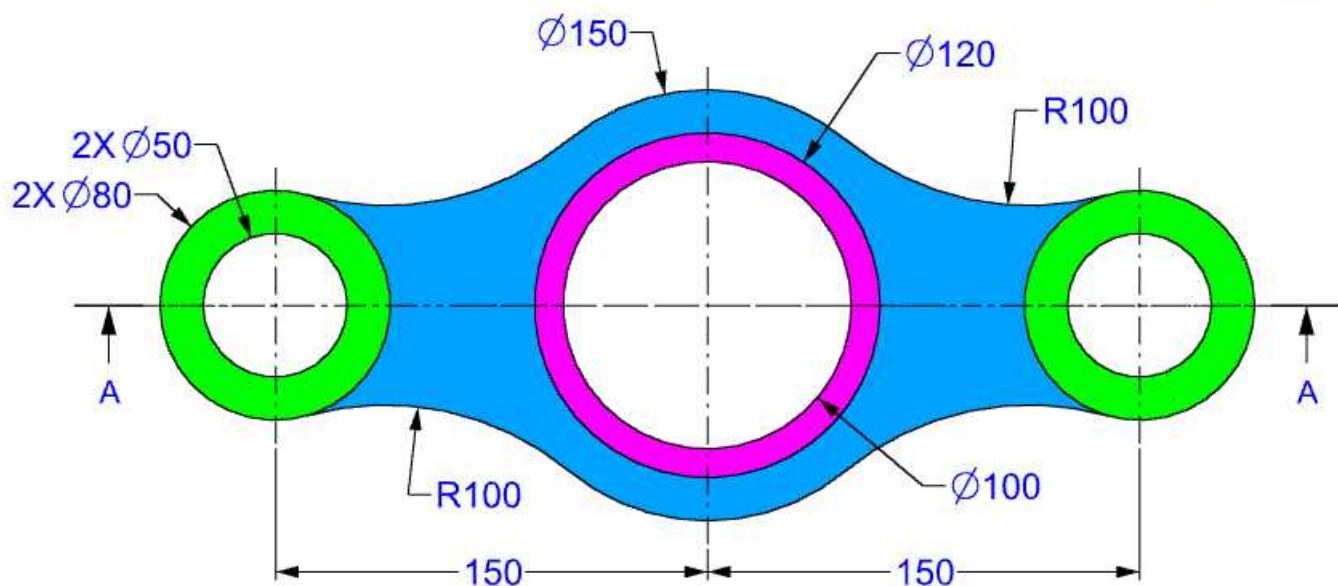
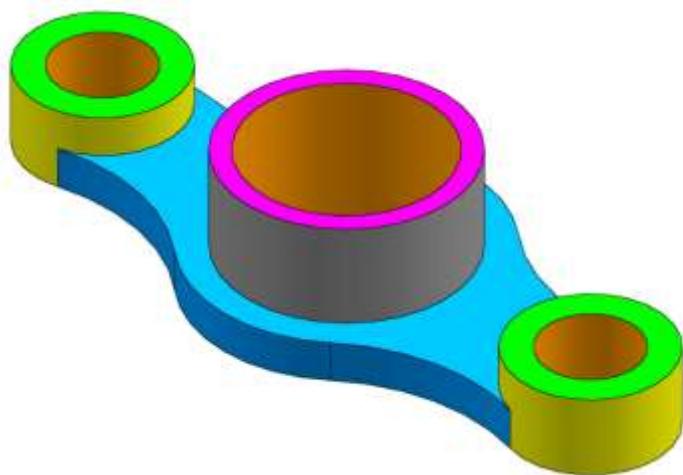
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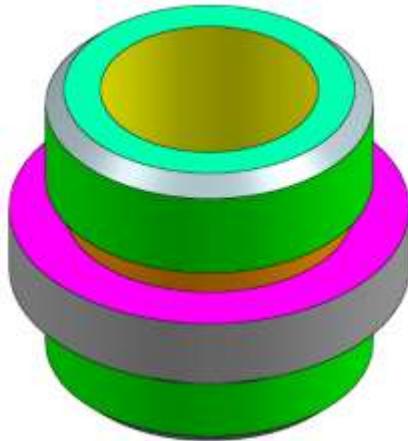
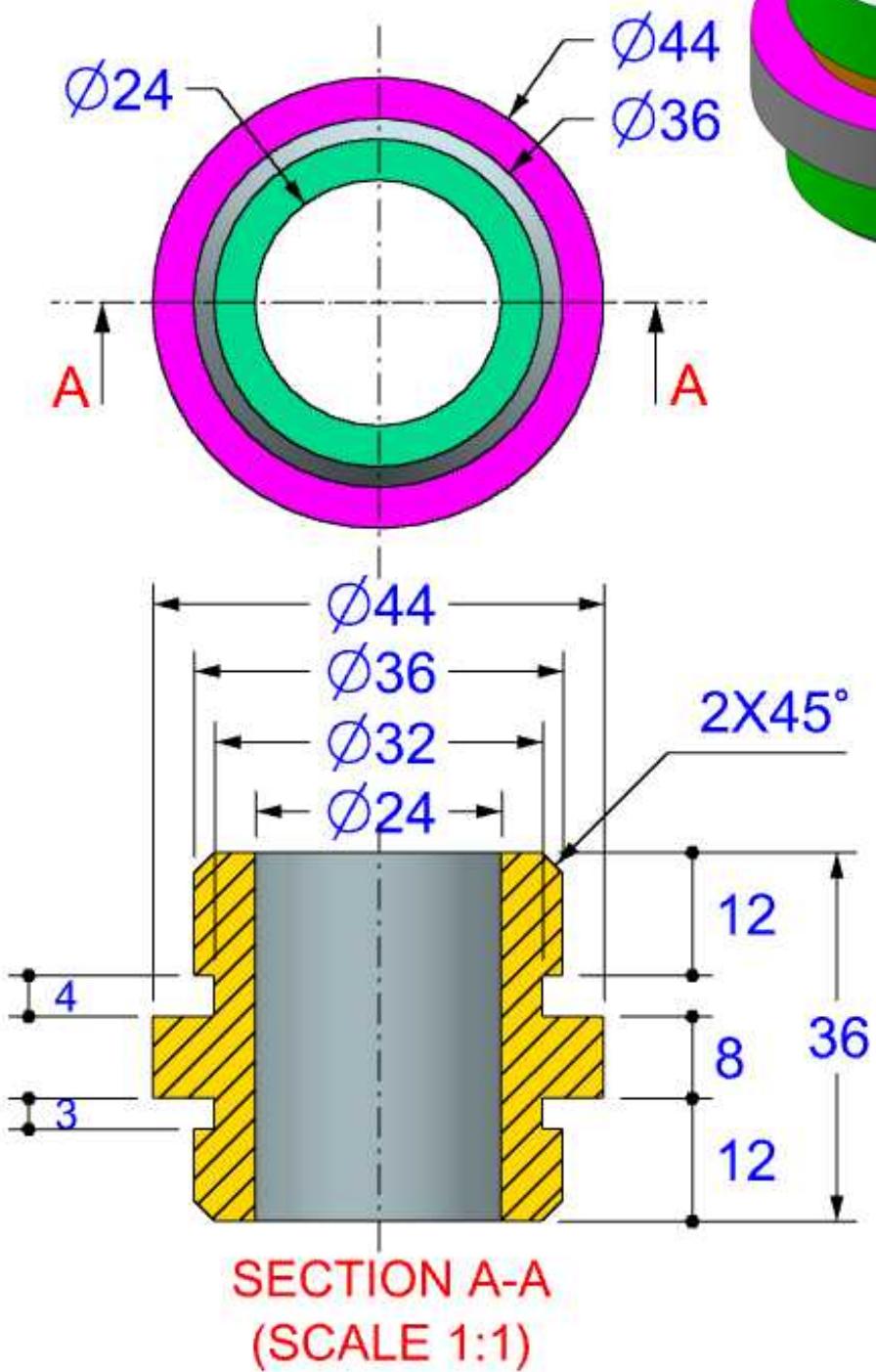


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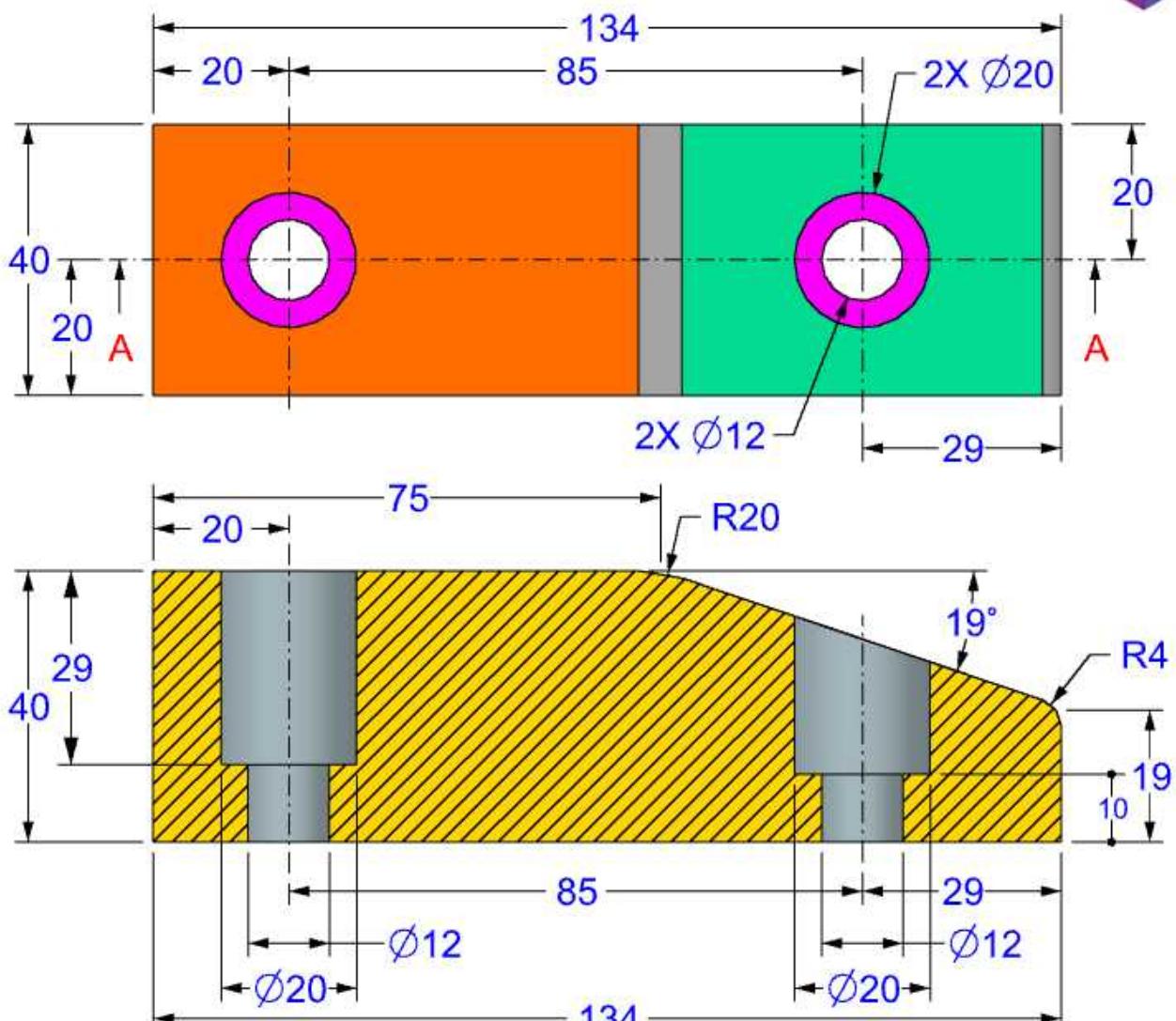
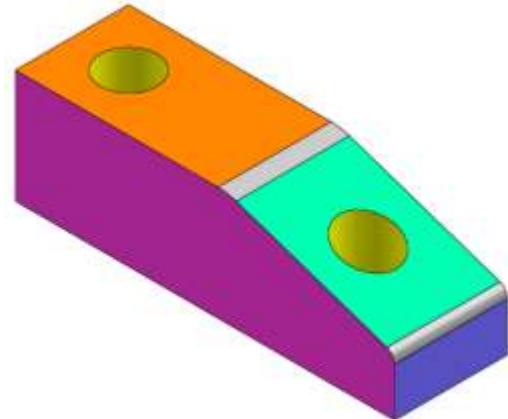


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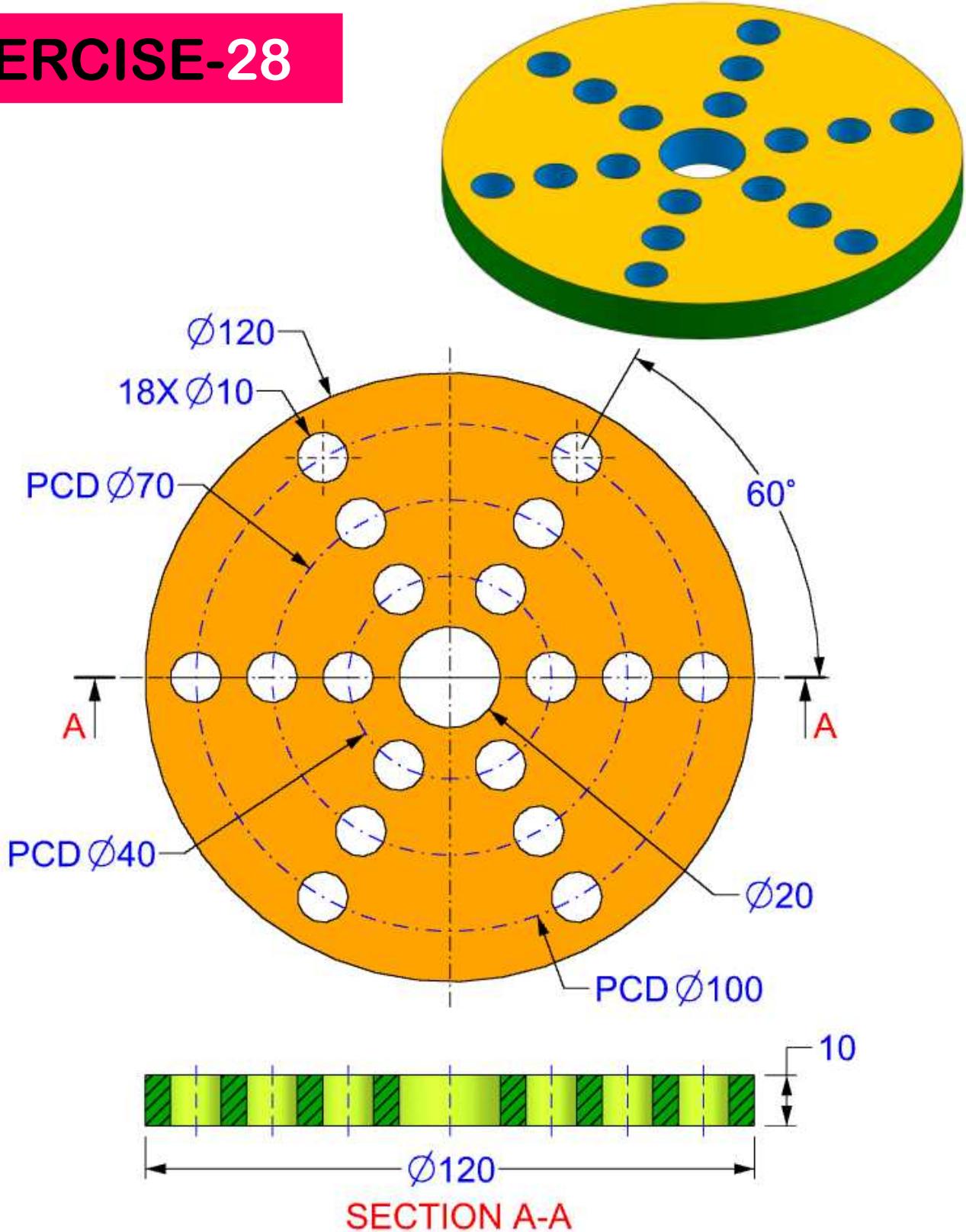


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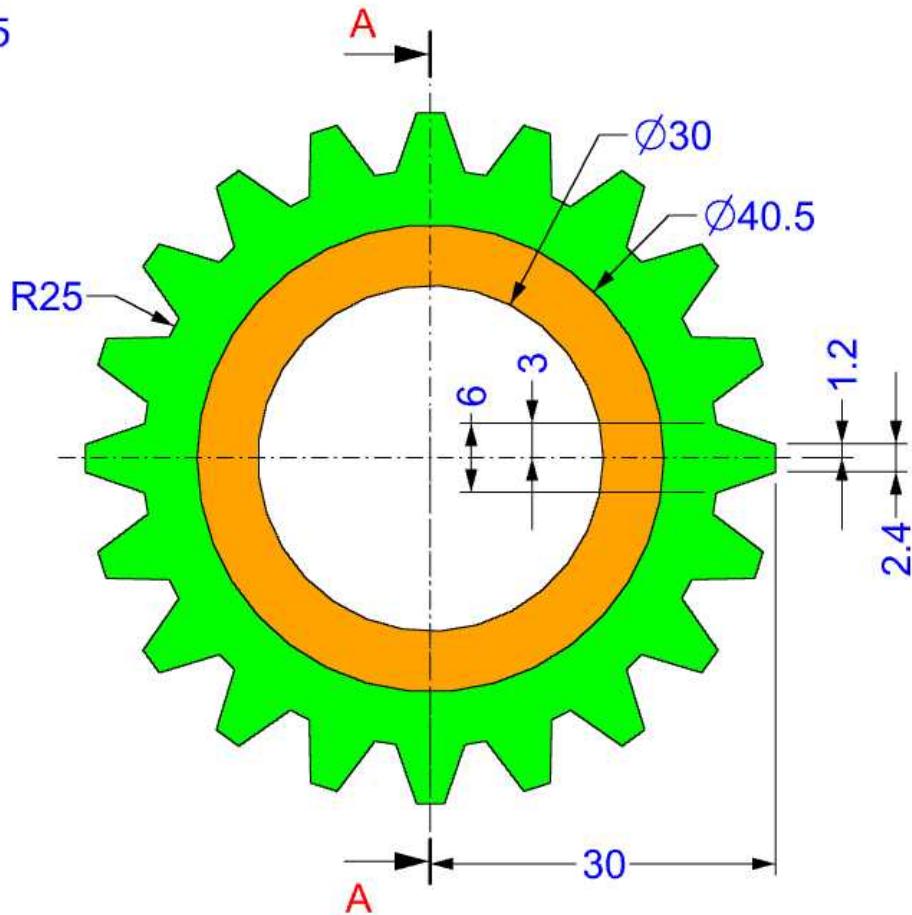
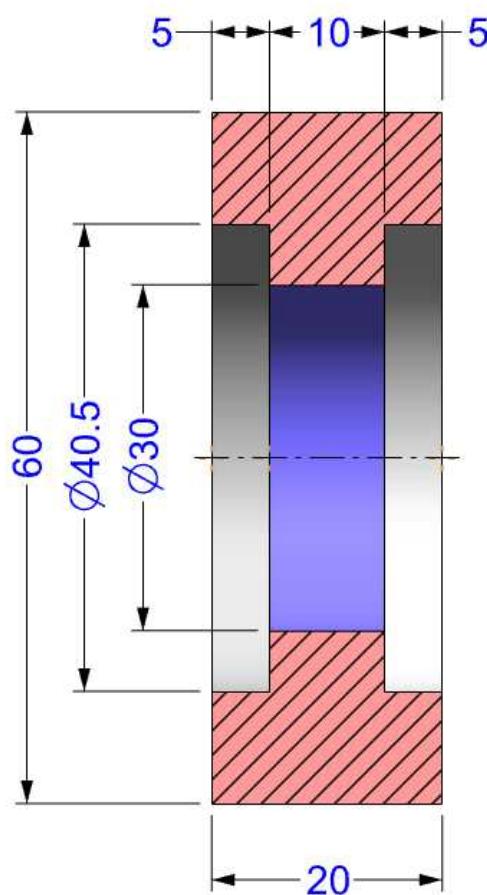


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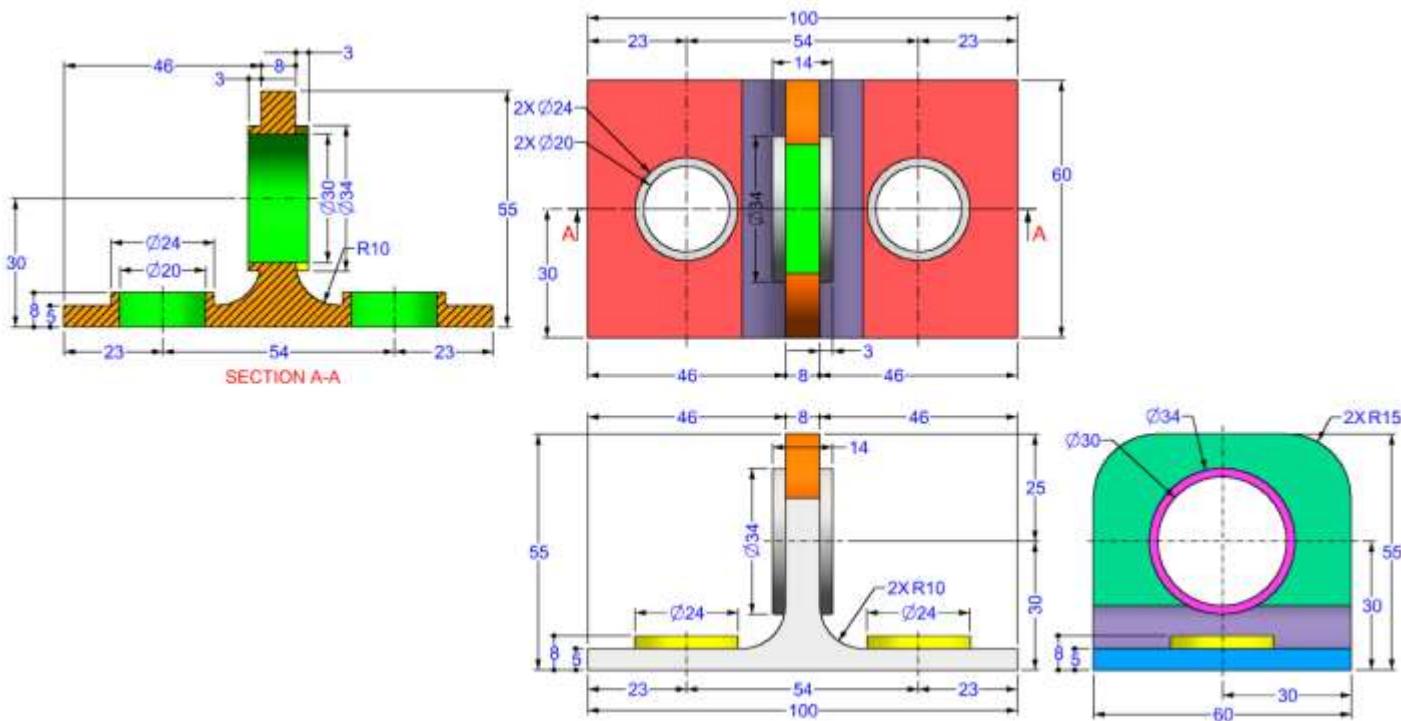
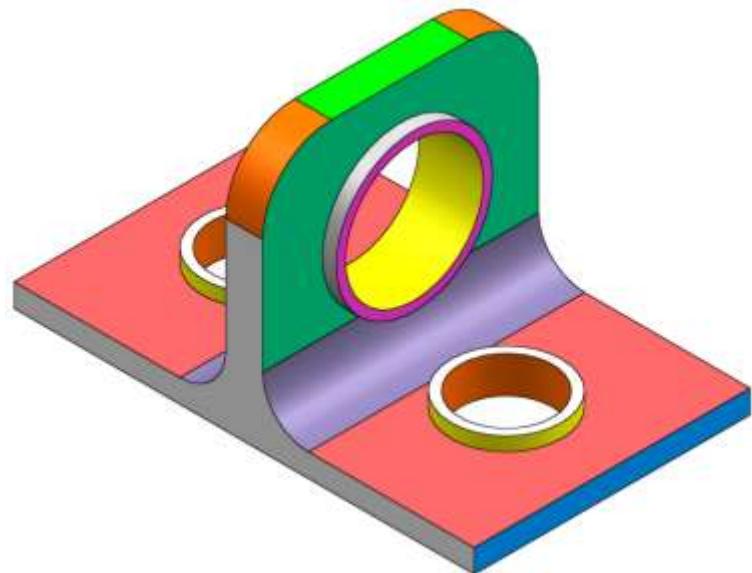


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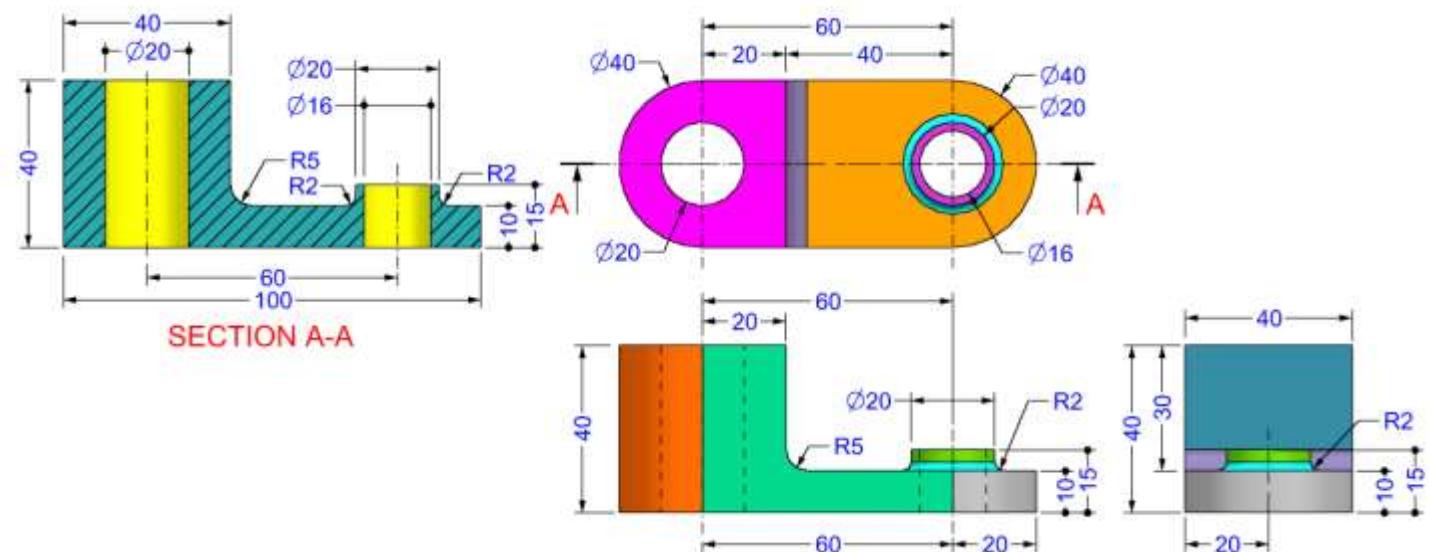
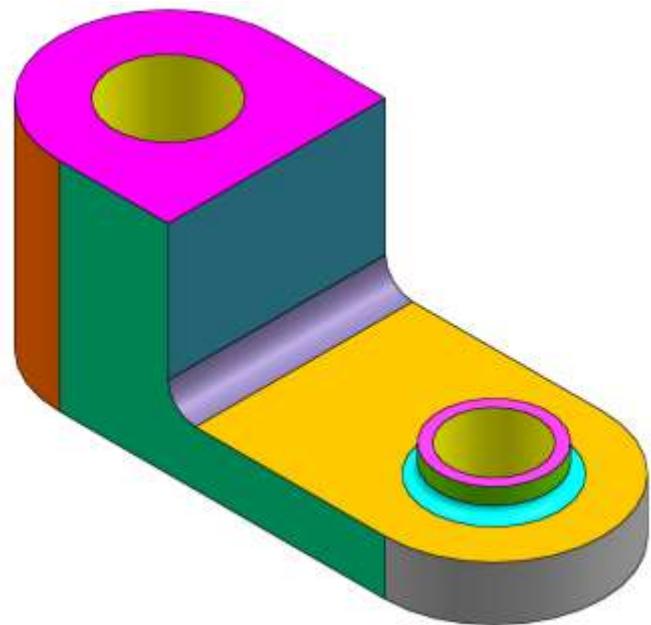


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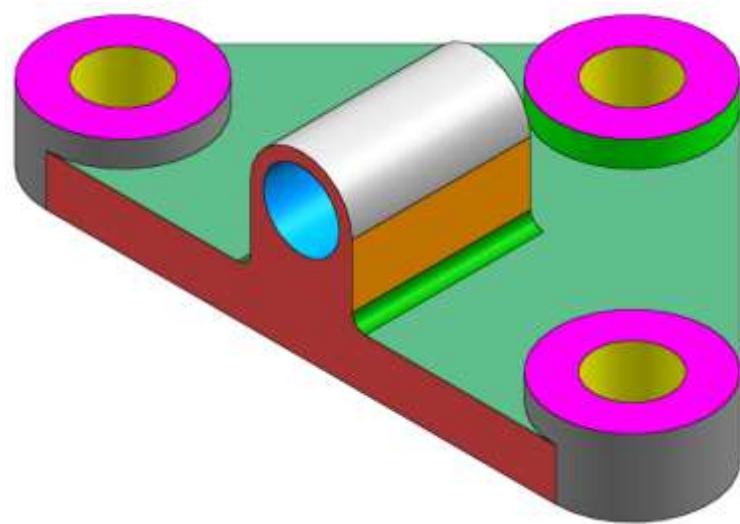
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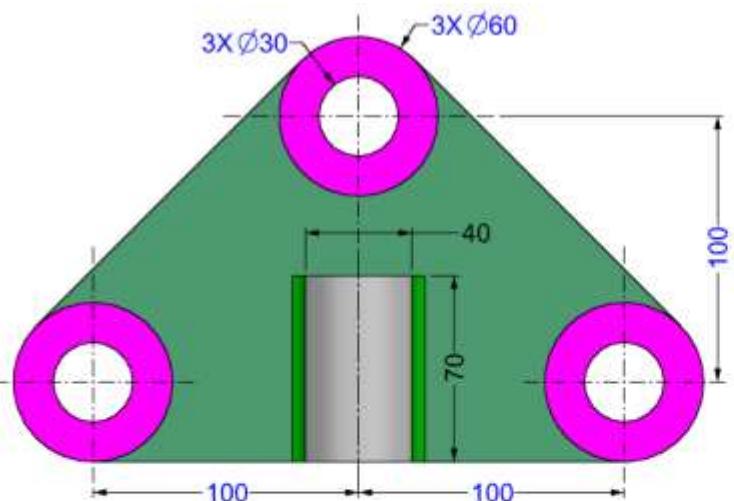
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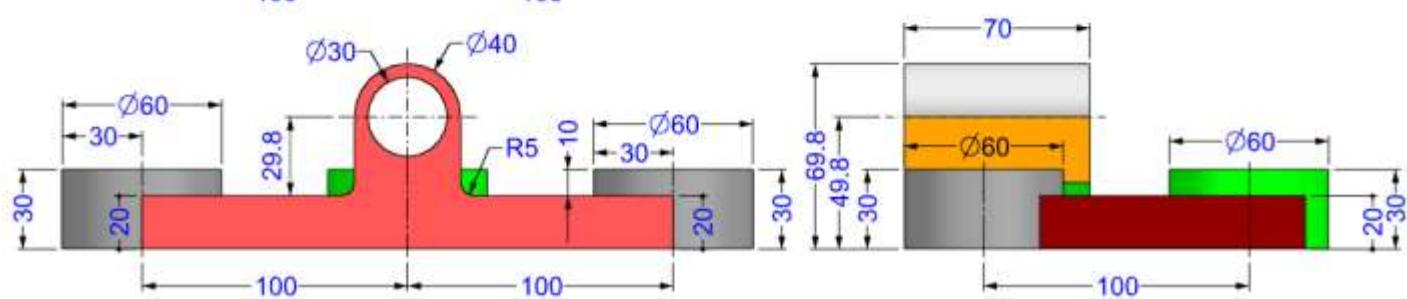
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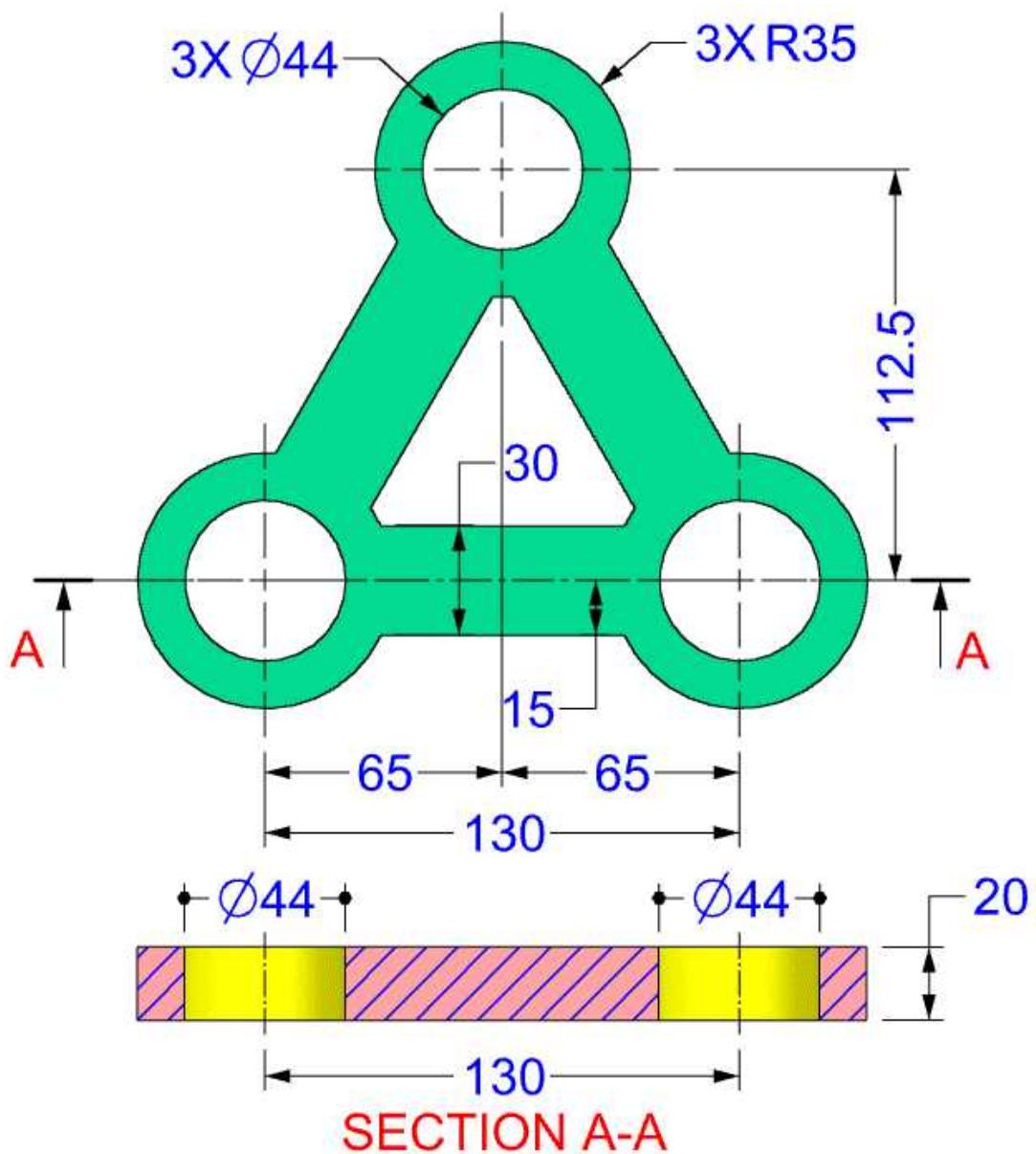
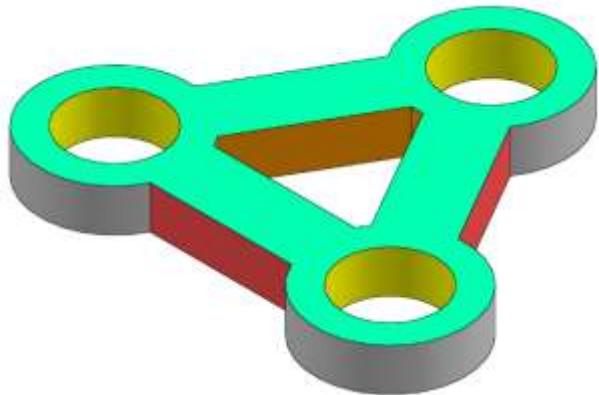
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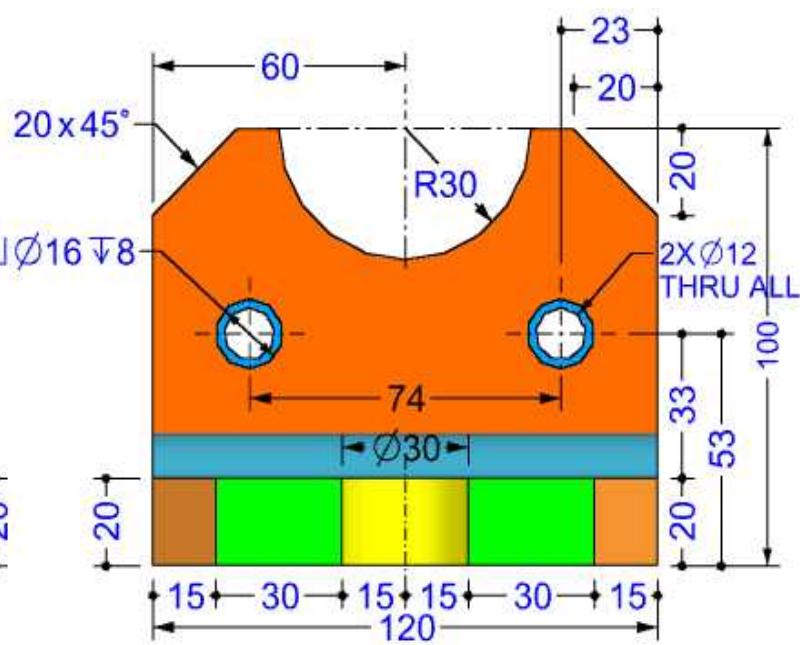
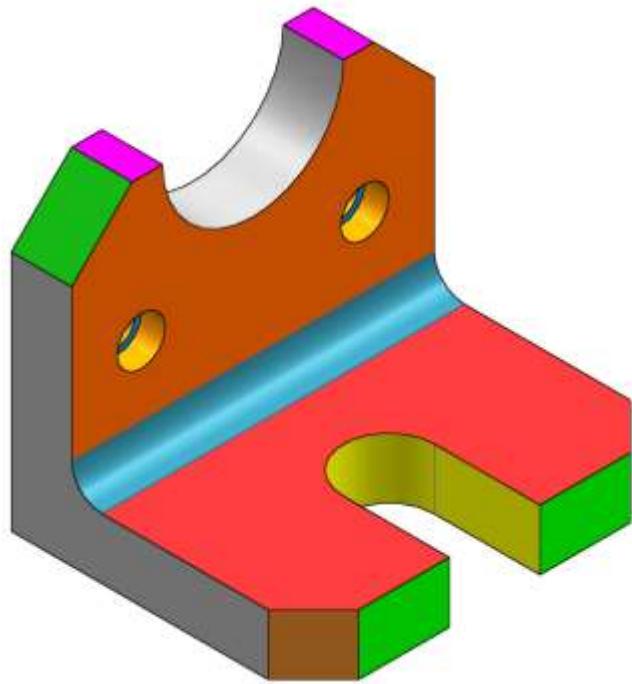
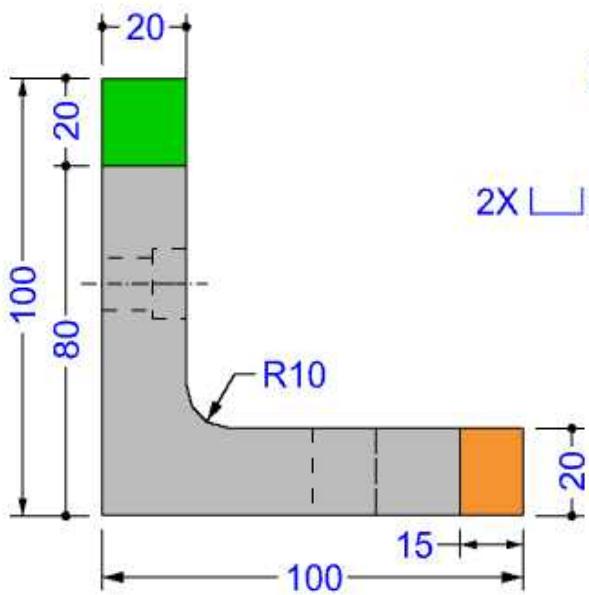
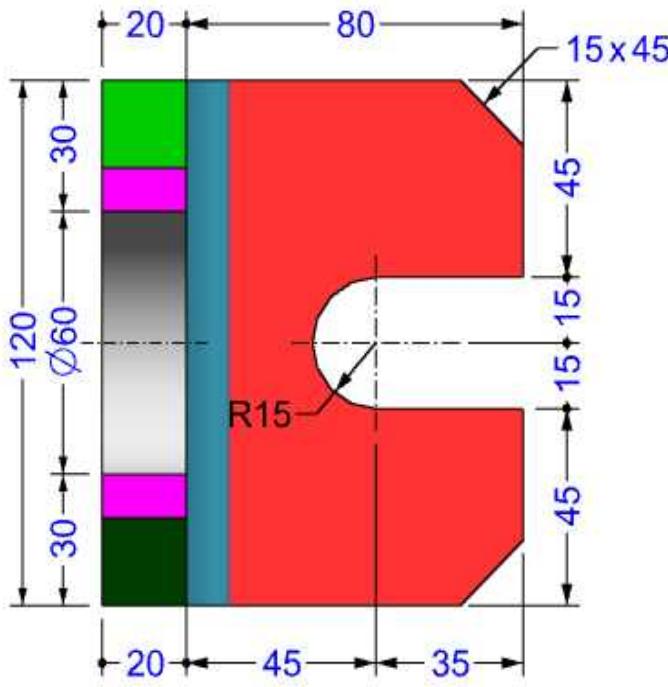
$\varnothing 30$        $\varnothing 40$



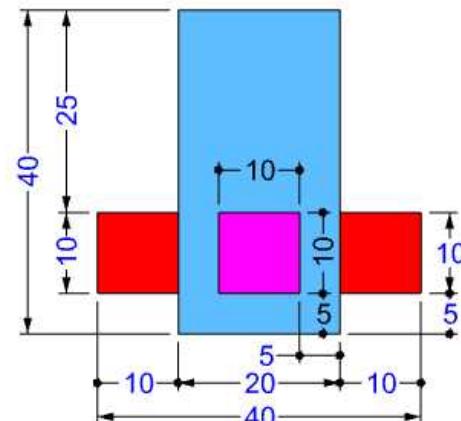
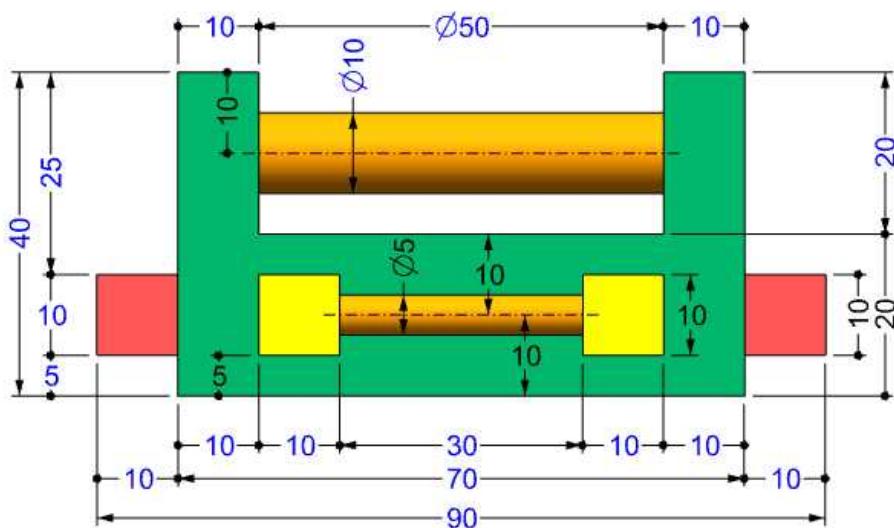
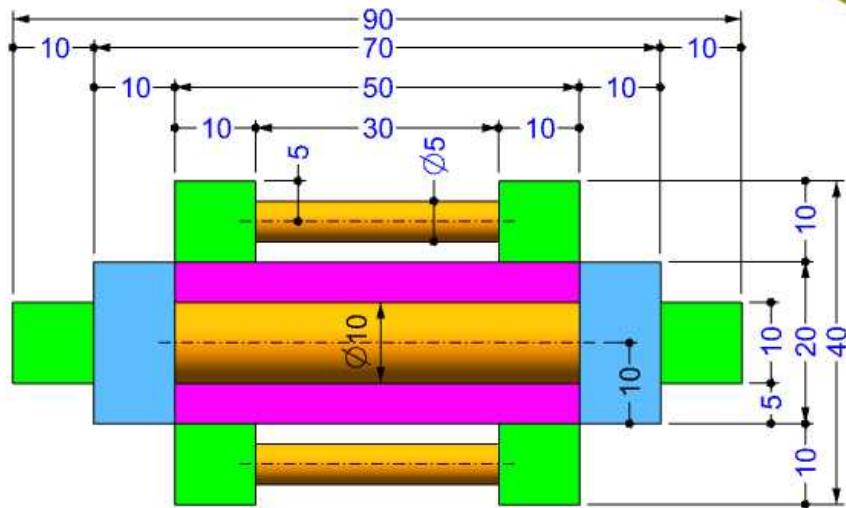
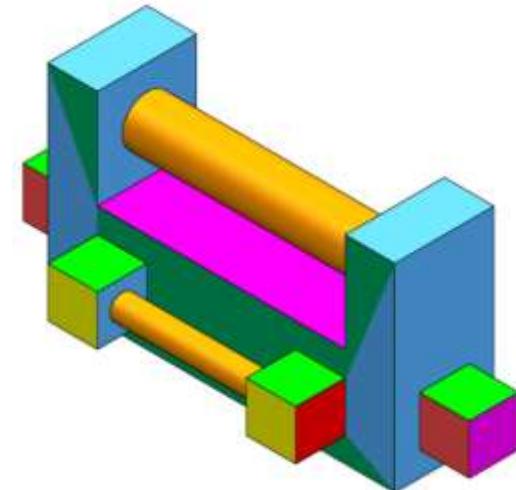
# EXERCISE-33



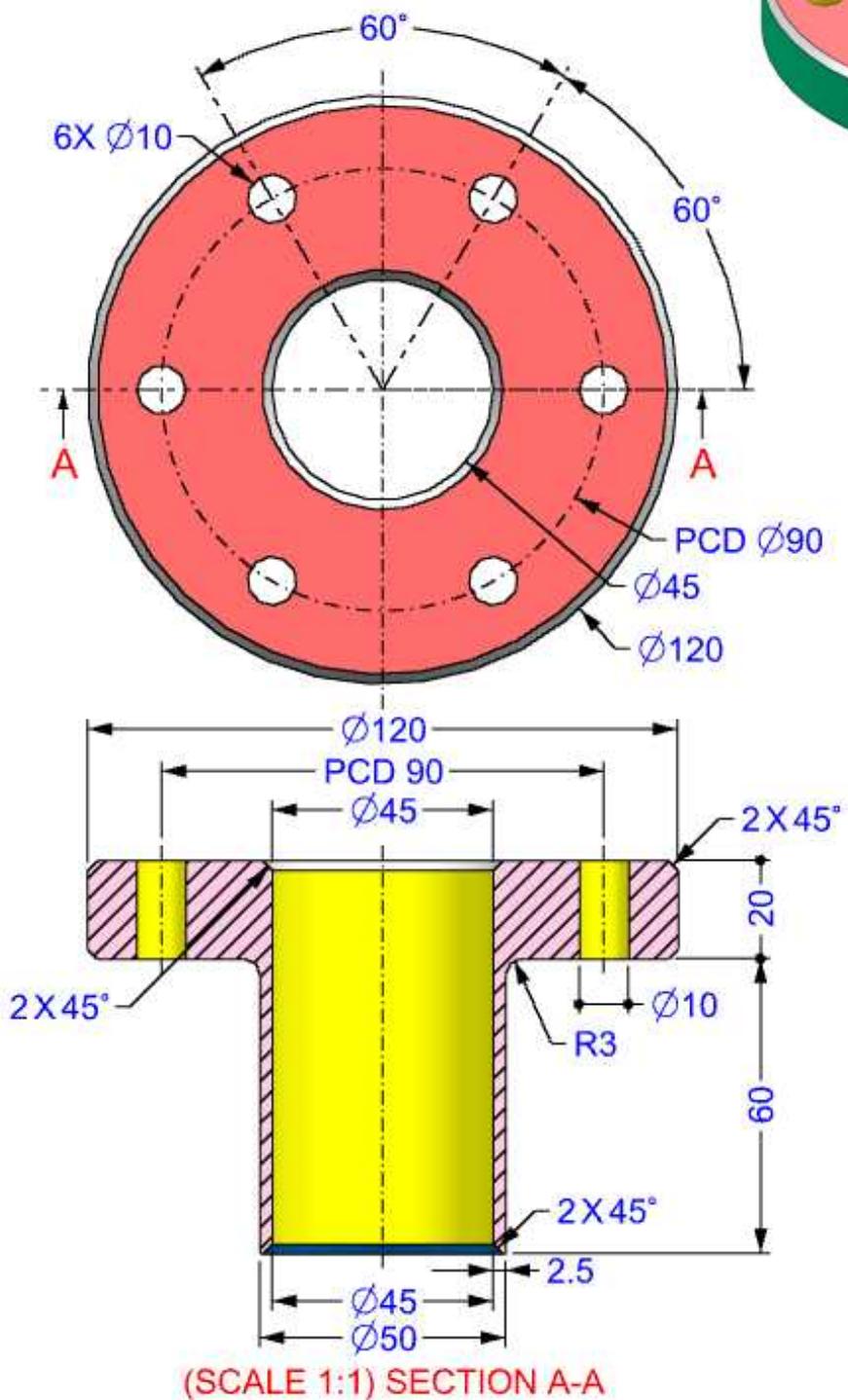
# EXERCISE-34



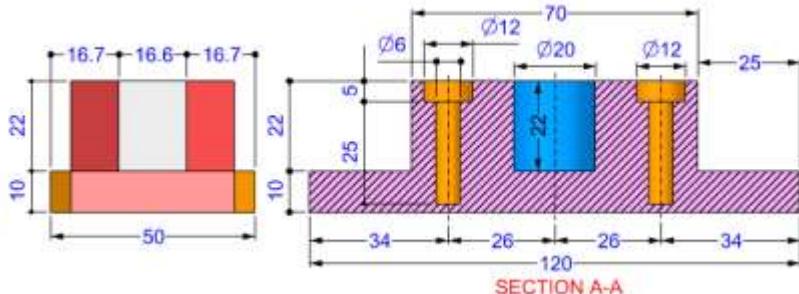
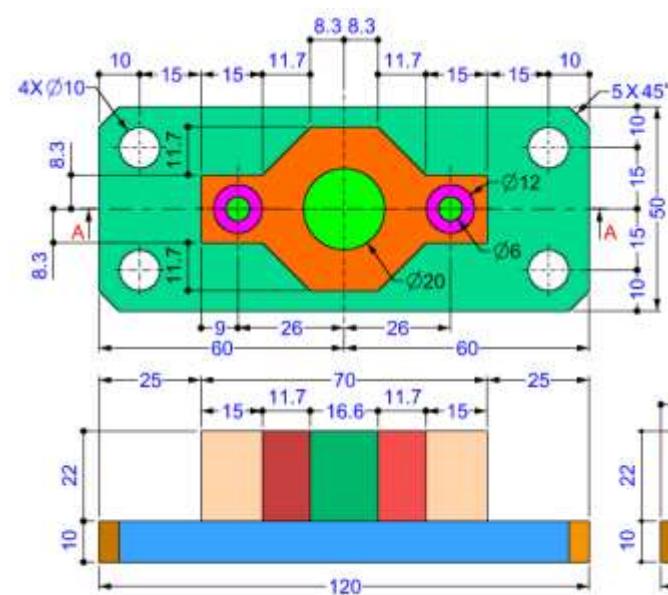
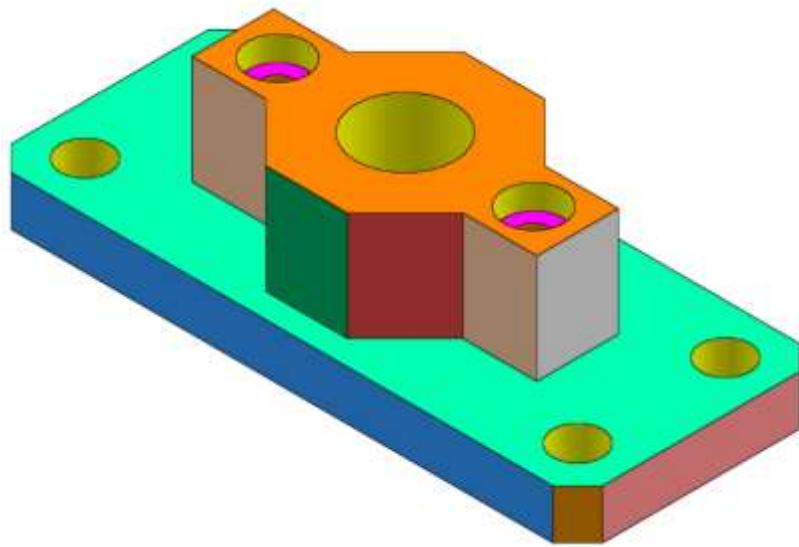
# **EXERCISE-35**



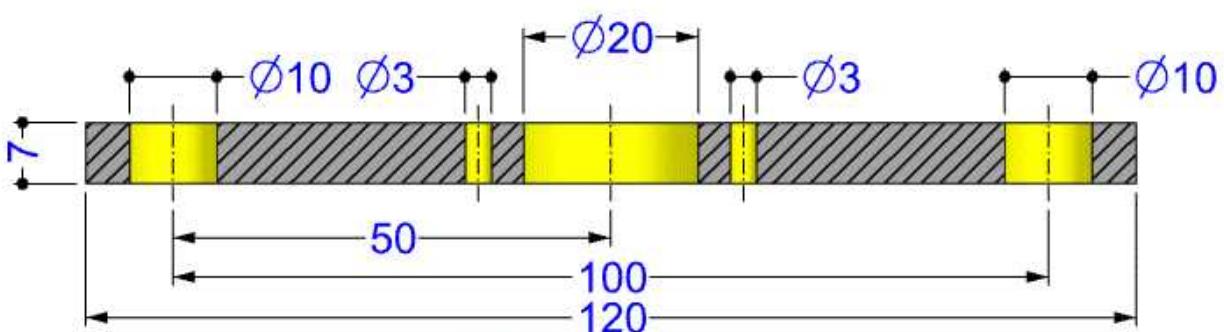
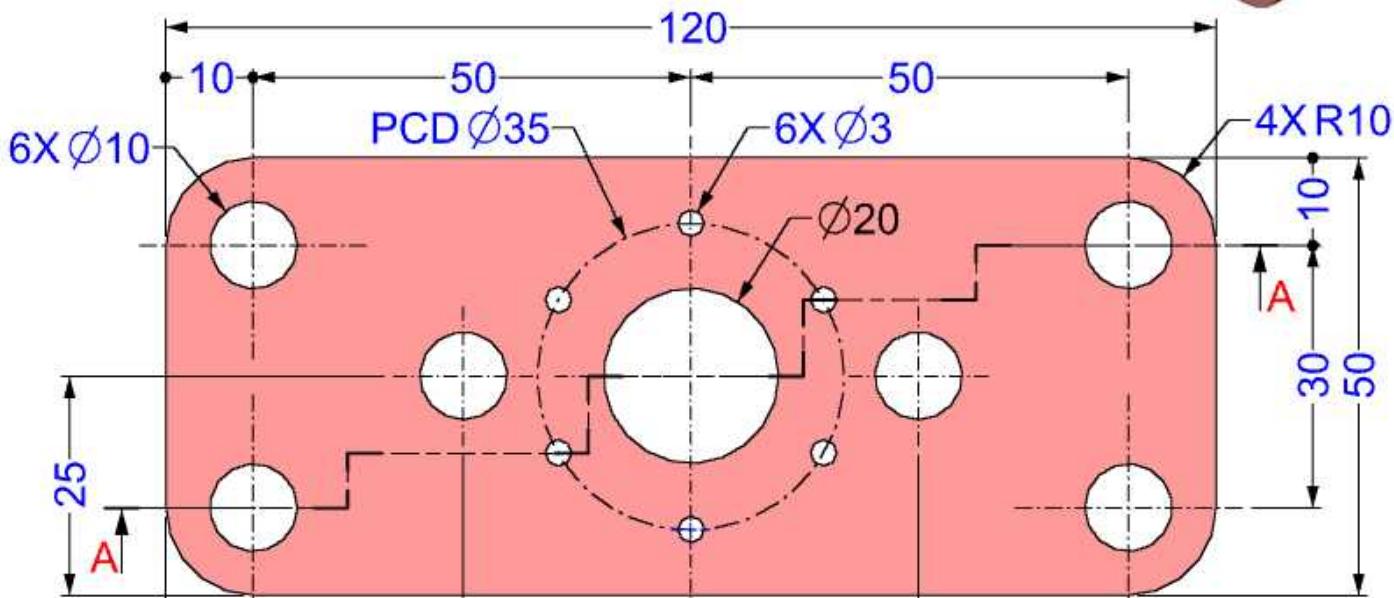
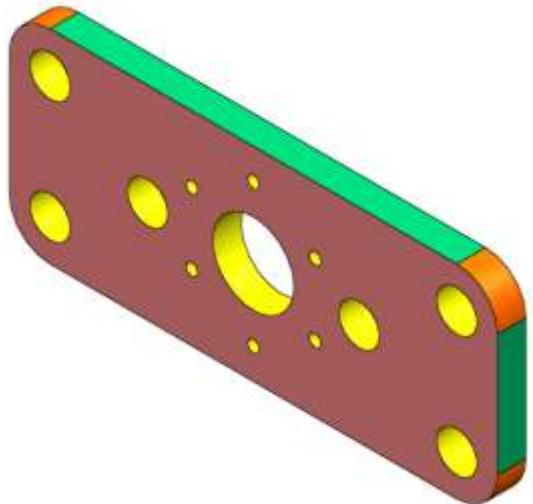
# EXERCISE-36



# EXERCISE-37

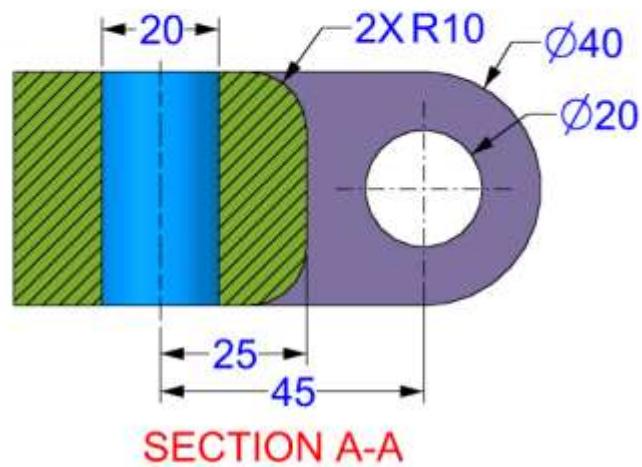
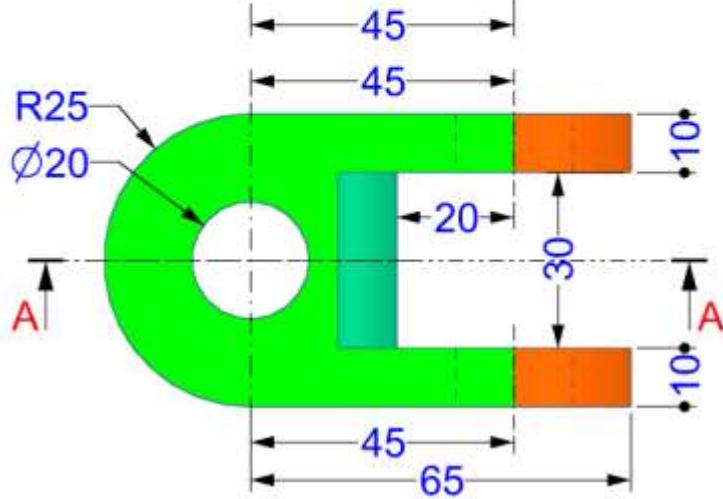
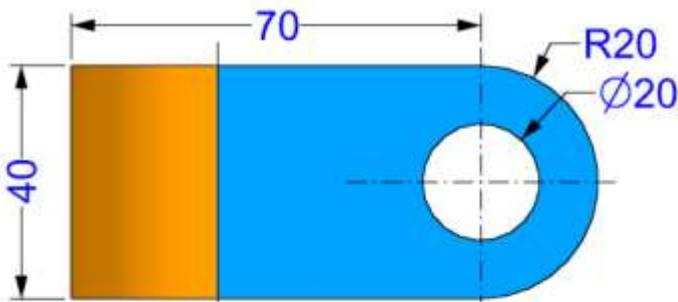
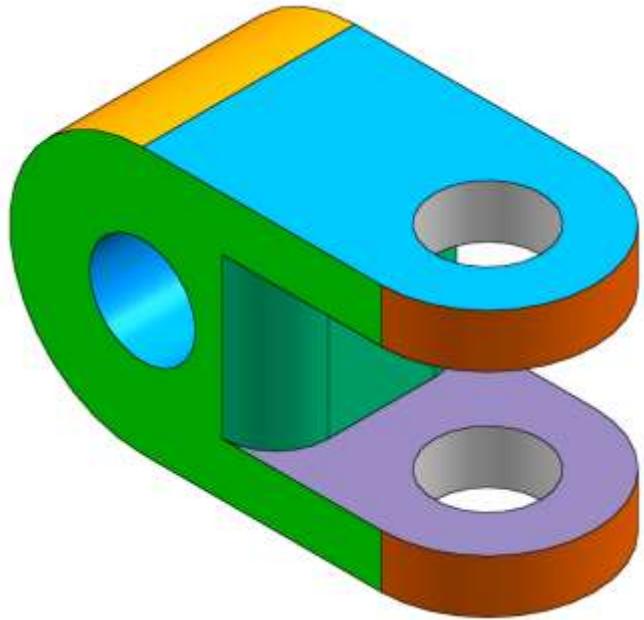


## EXERCISE-38

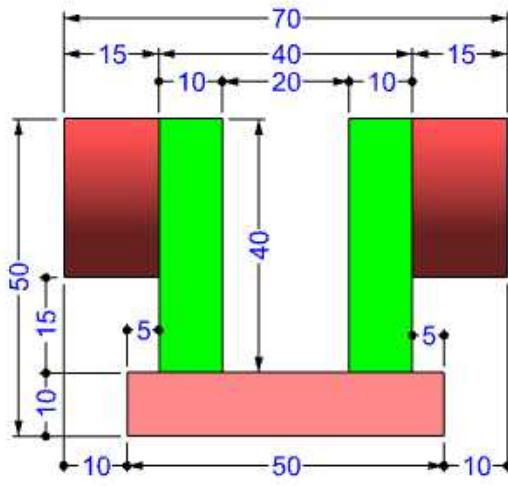
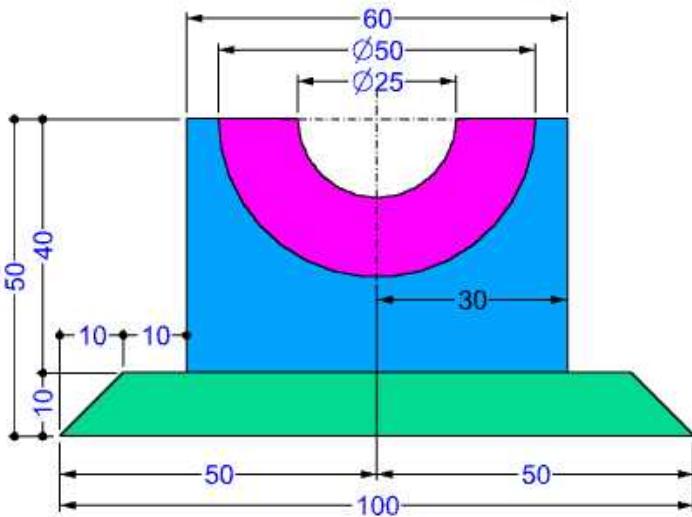
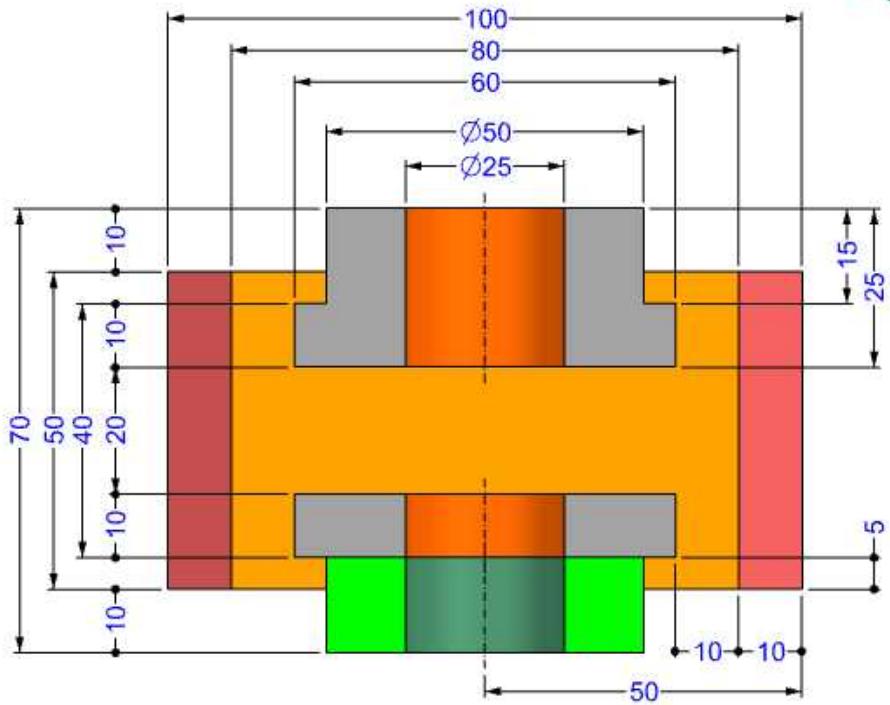
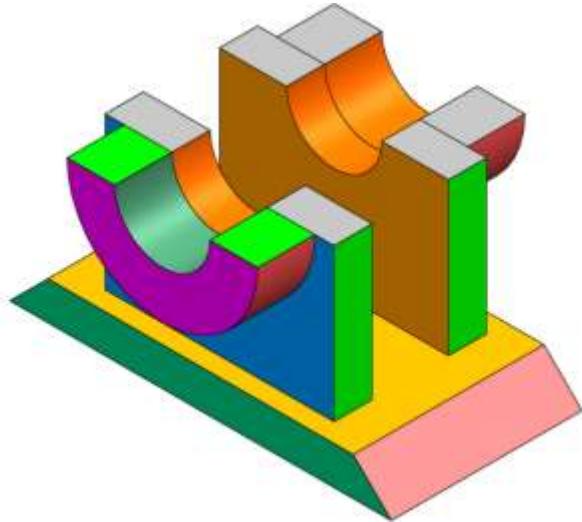


SECTION A-A

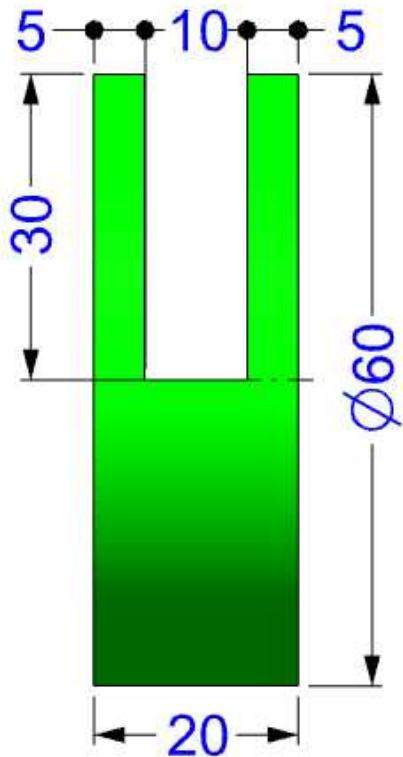
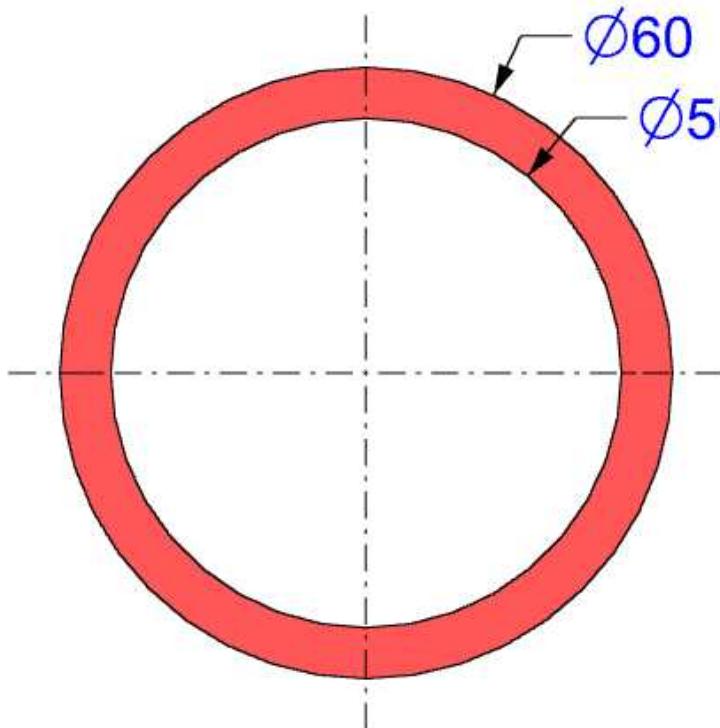
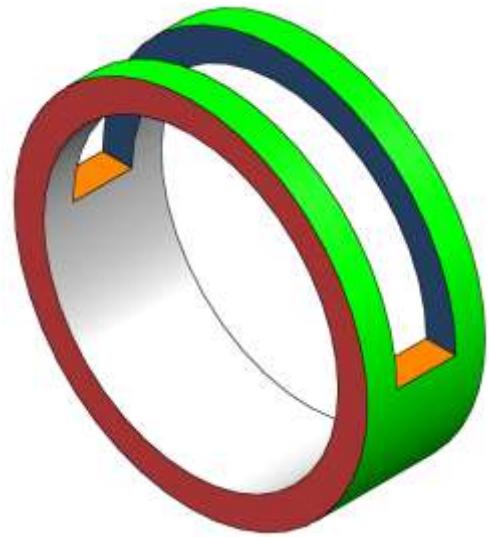
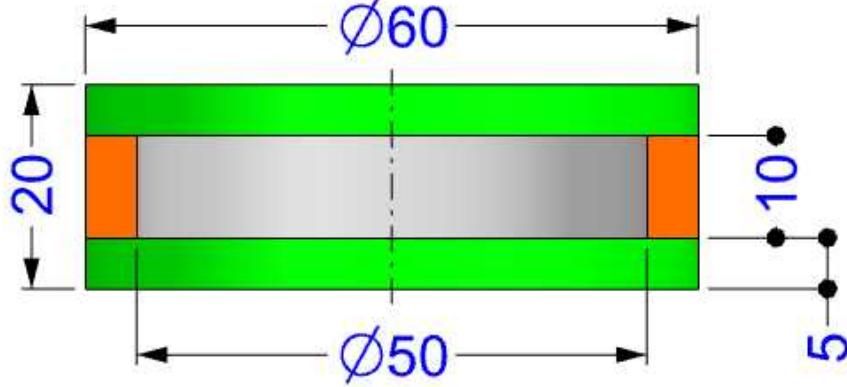
# EXERCISE-39



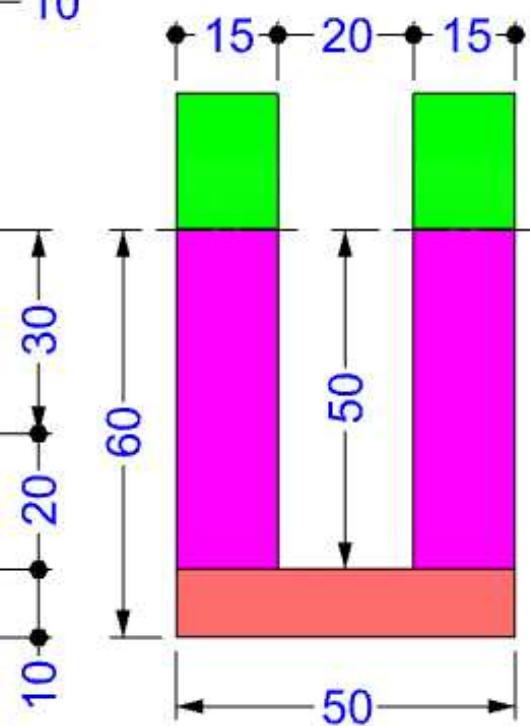
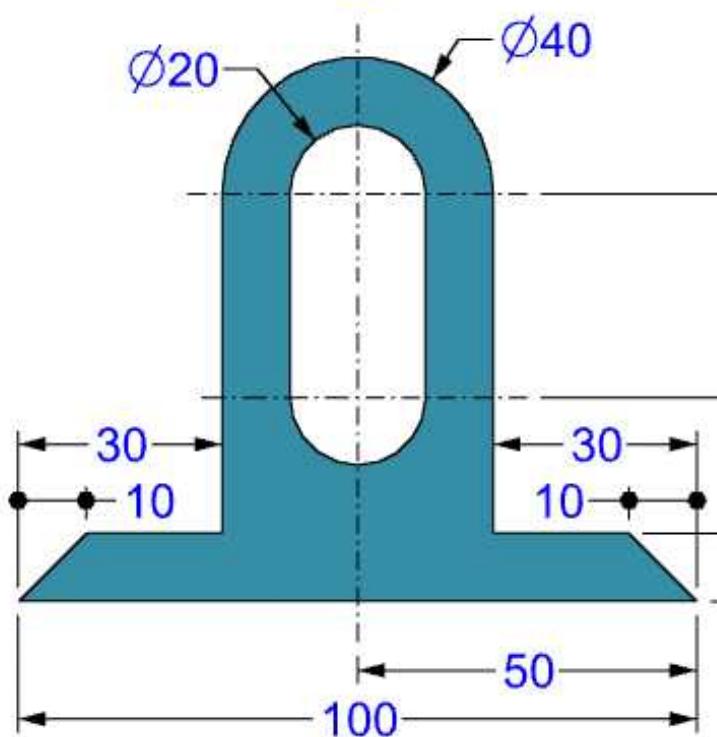
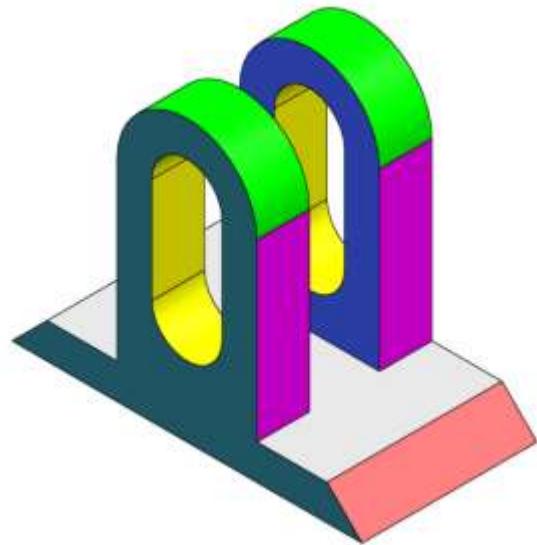
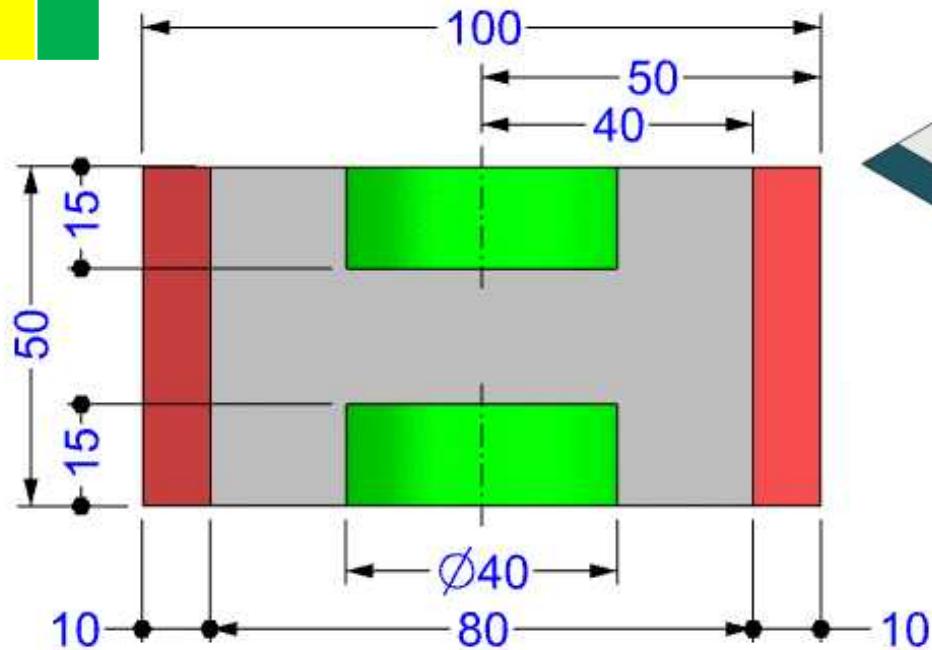
## **EXERCISE-40**



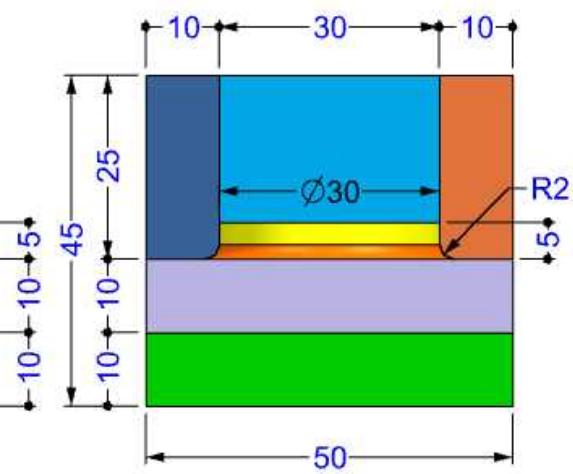
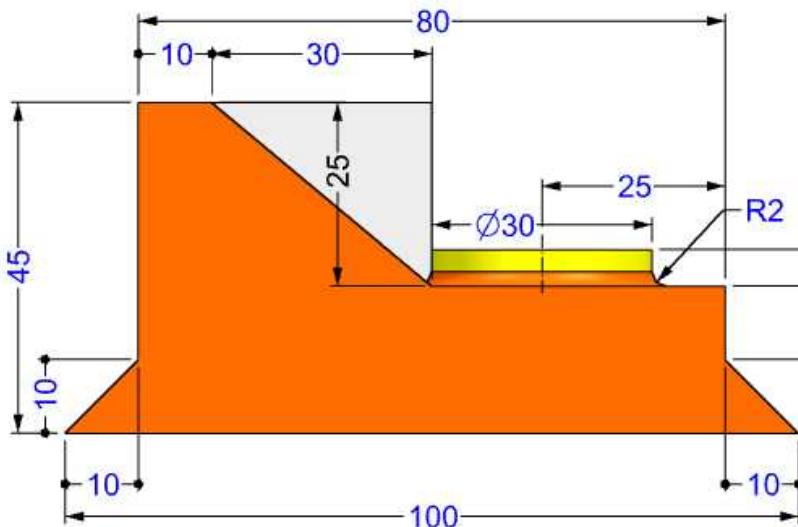
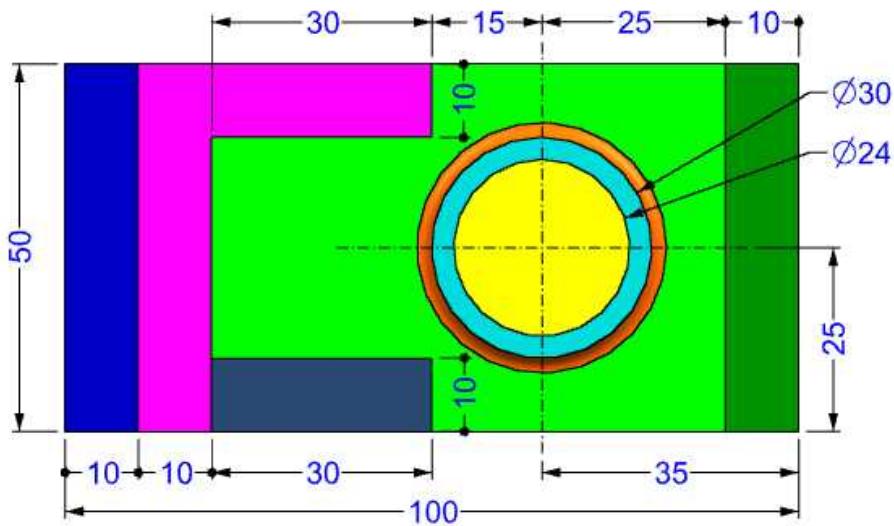
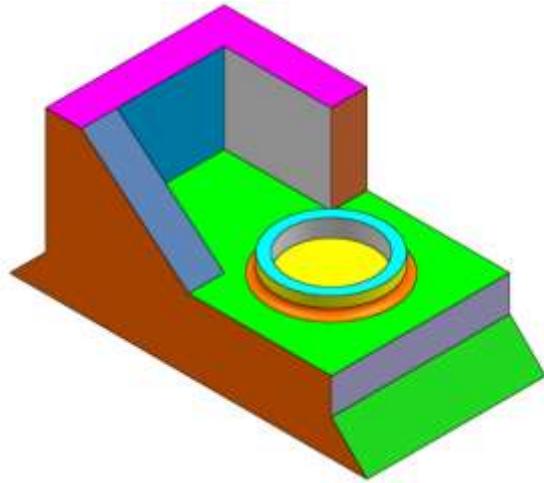
# EXERCISE-41



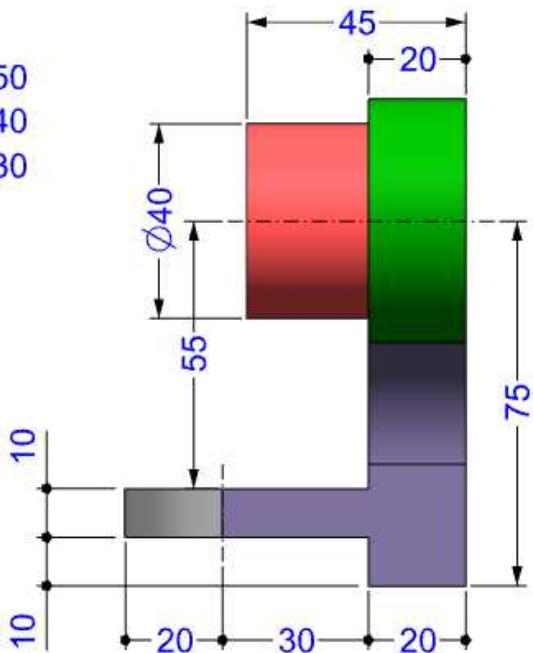
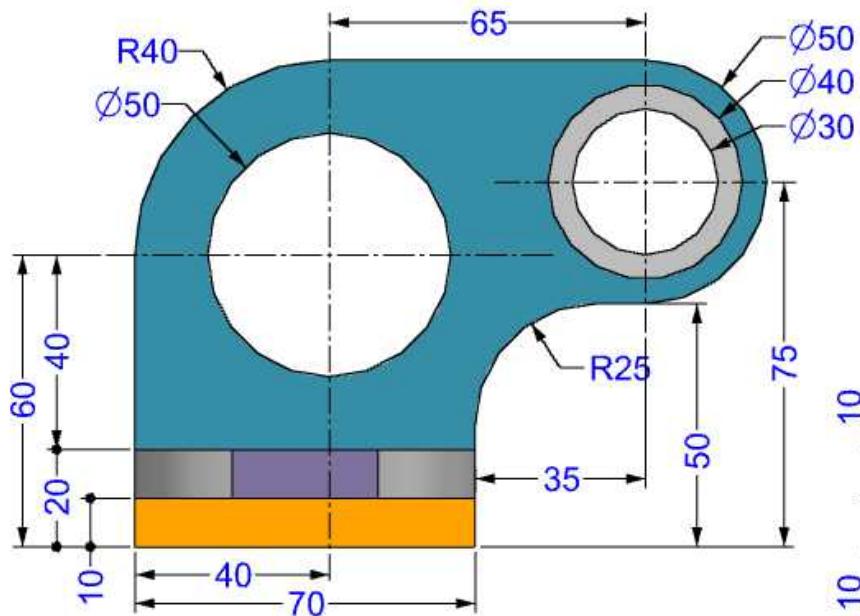
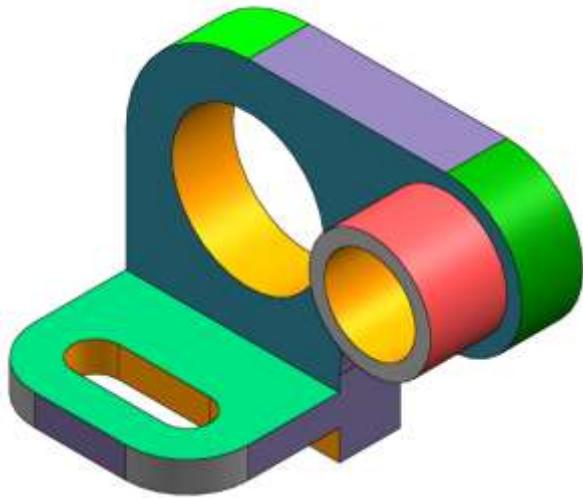
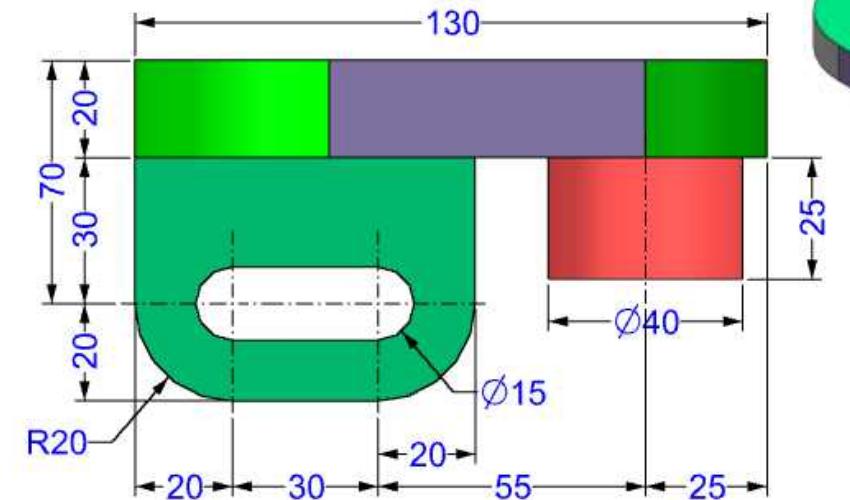
## EXERCISE-42



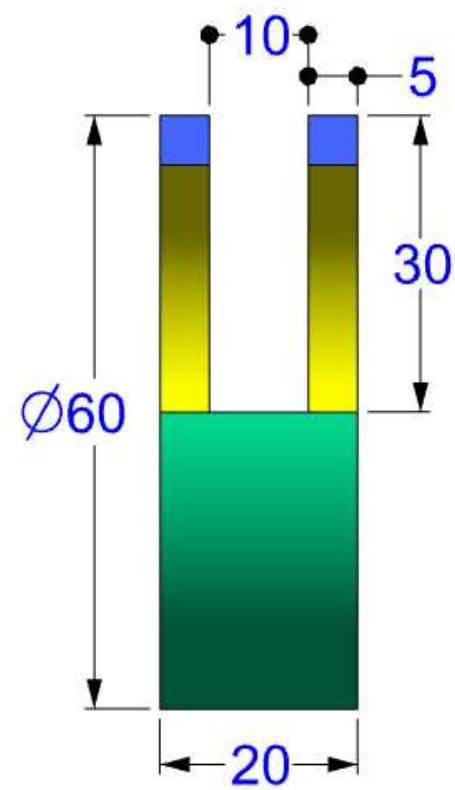
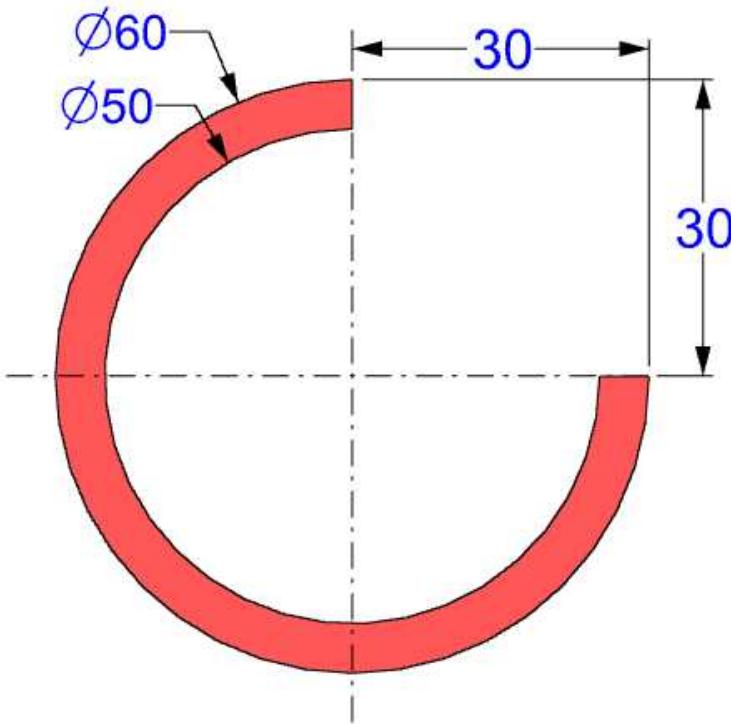
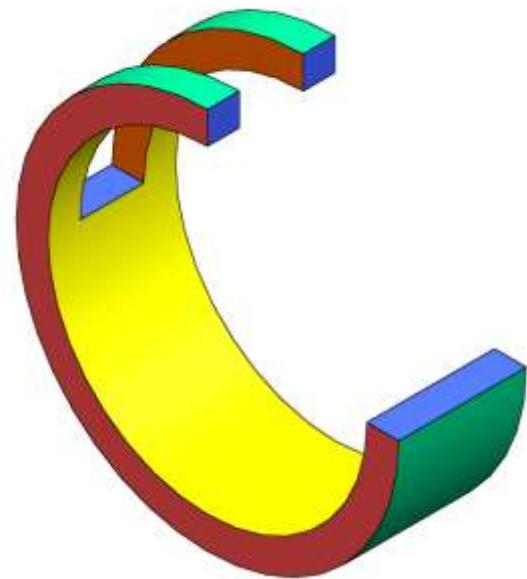
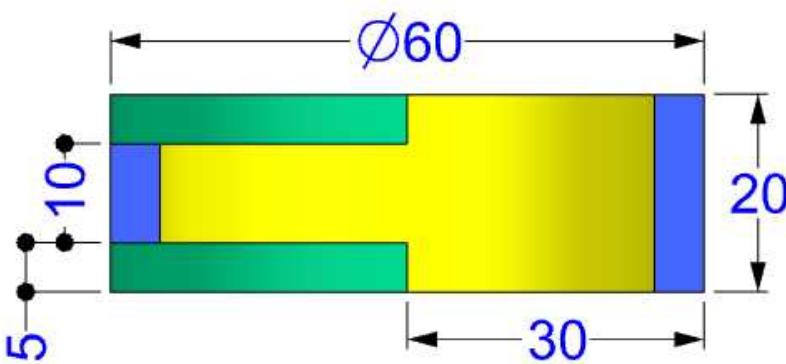
# EXERCISE-43



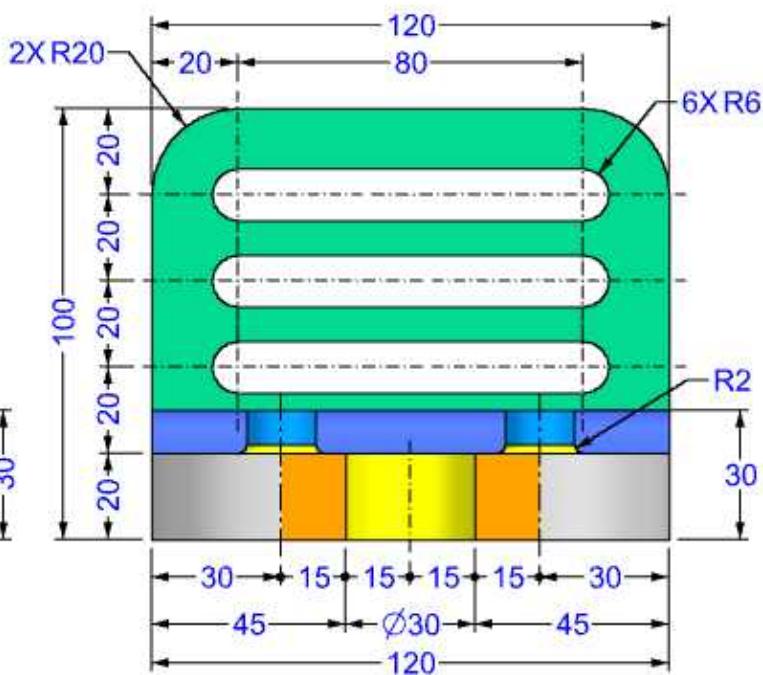
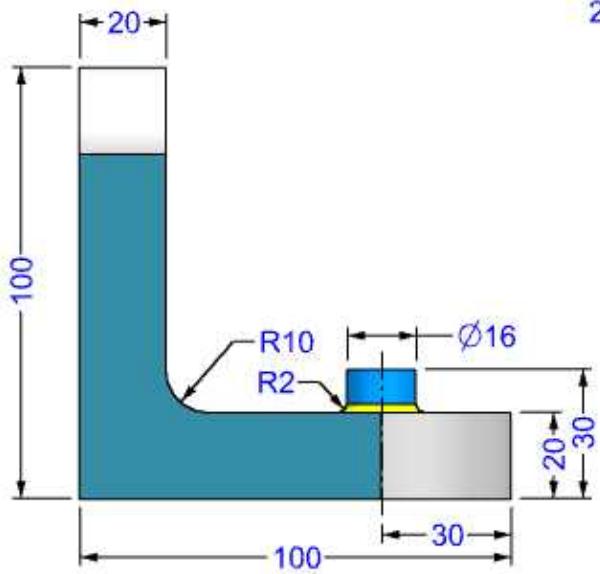
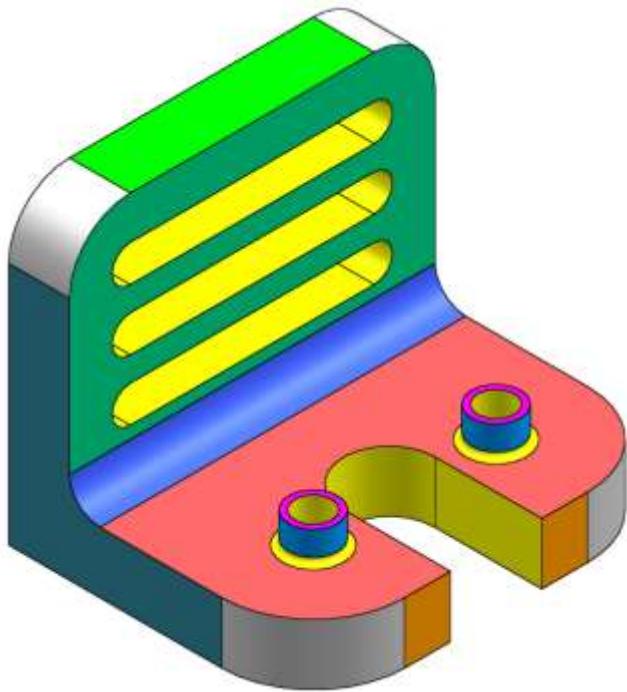
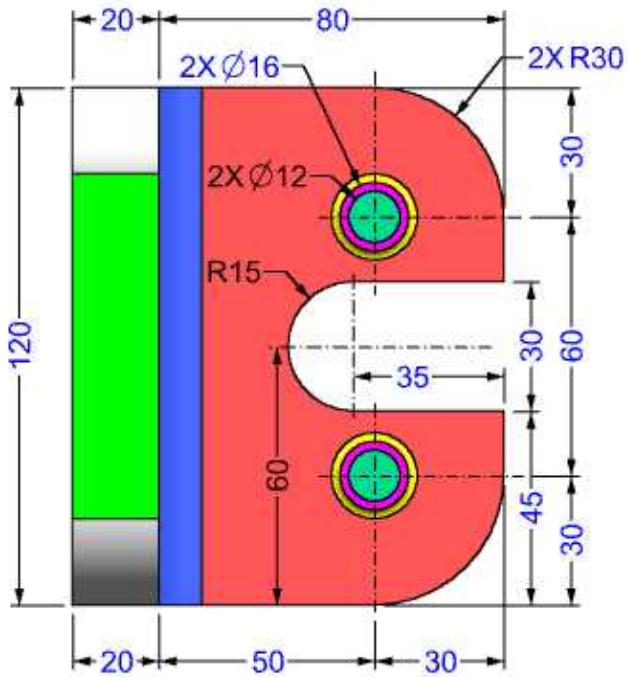
# EXERCISE-44



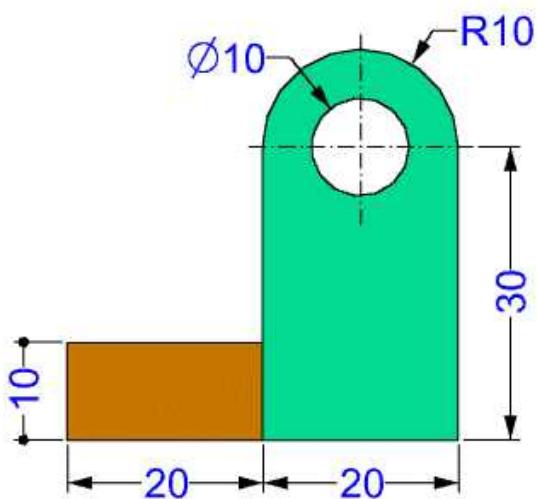
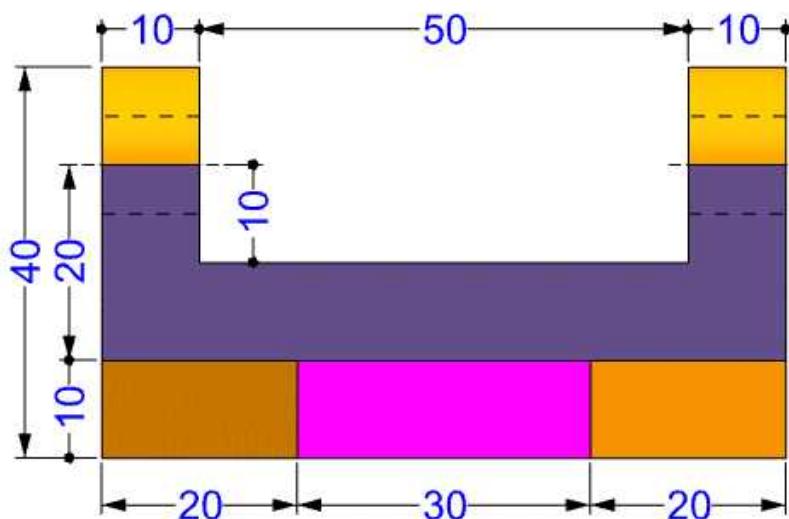
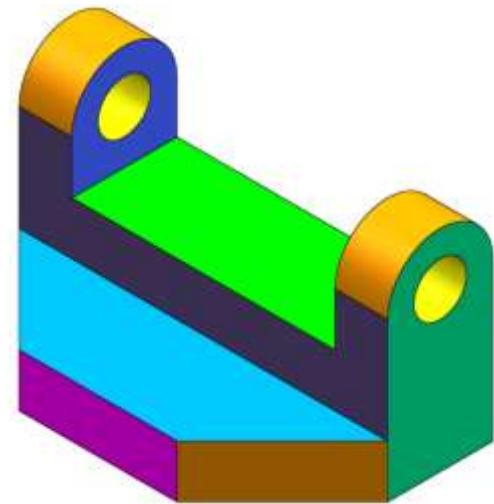
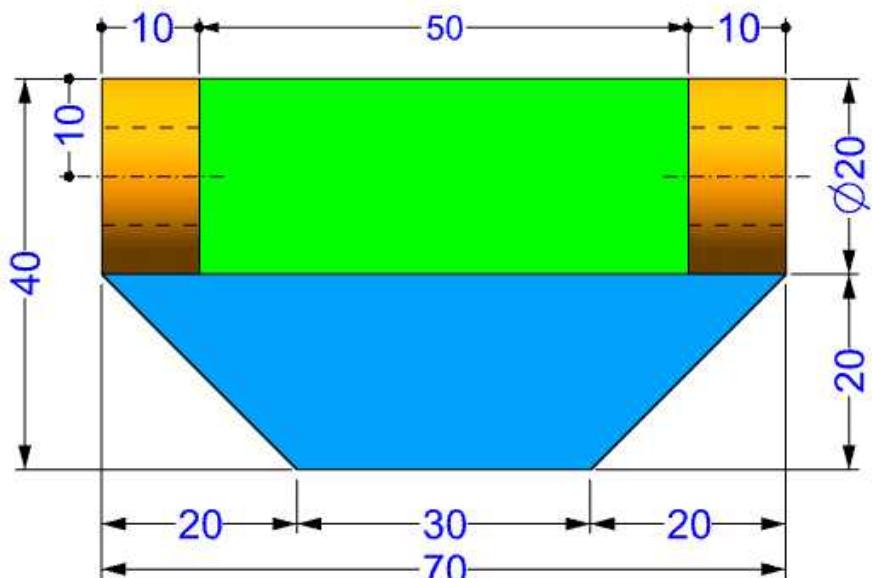
# EXERCISE-45



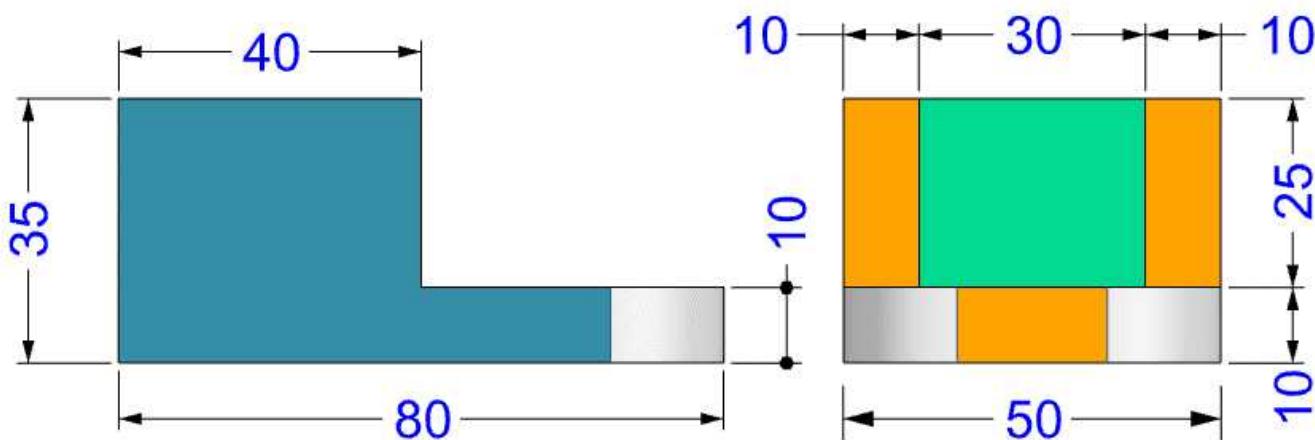
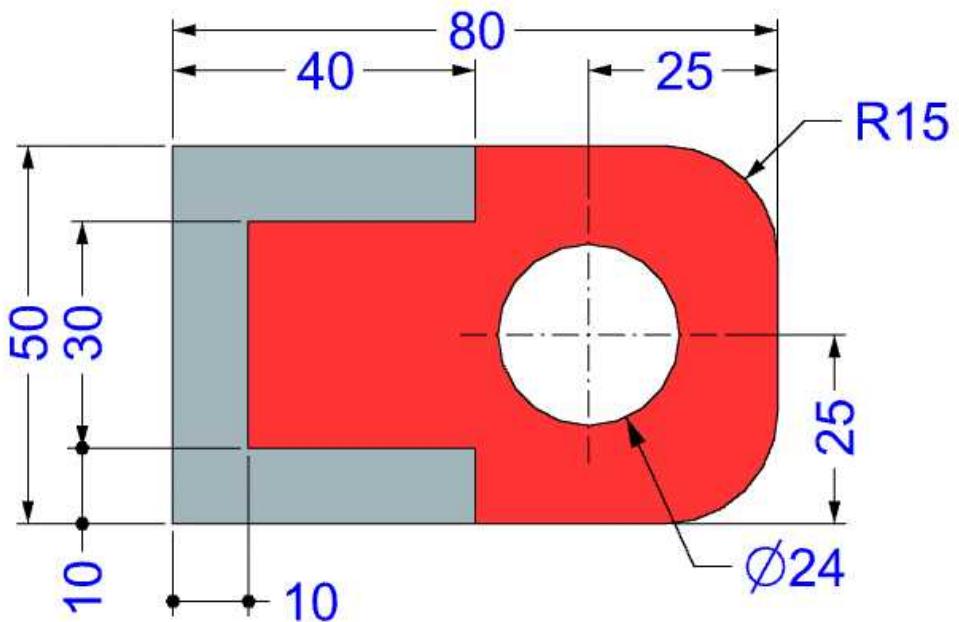
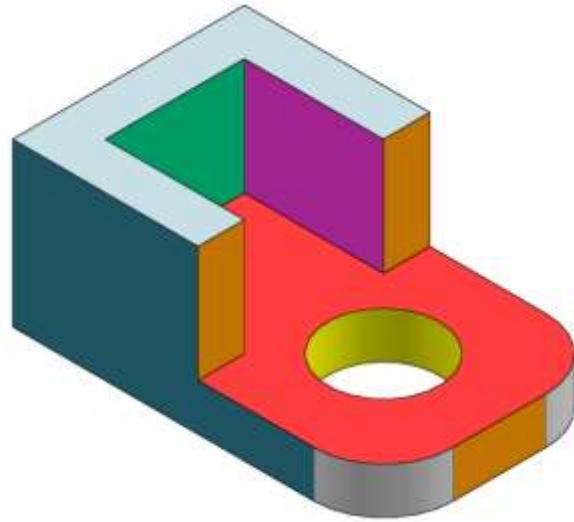
# EXERCISE-46



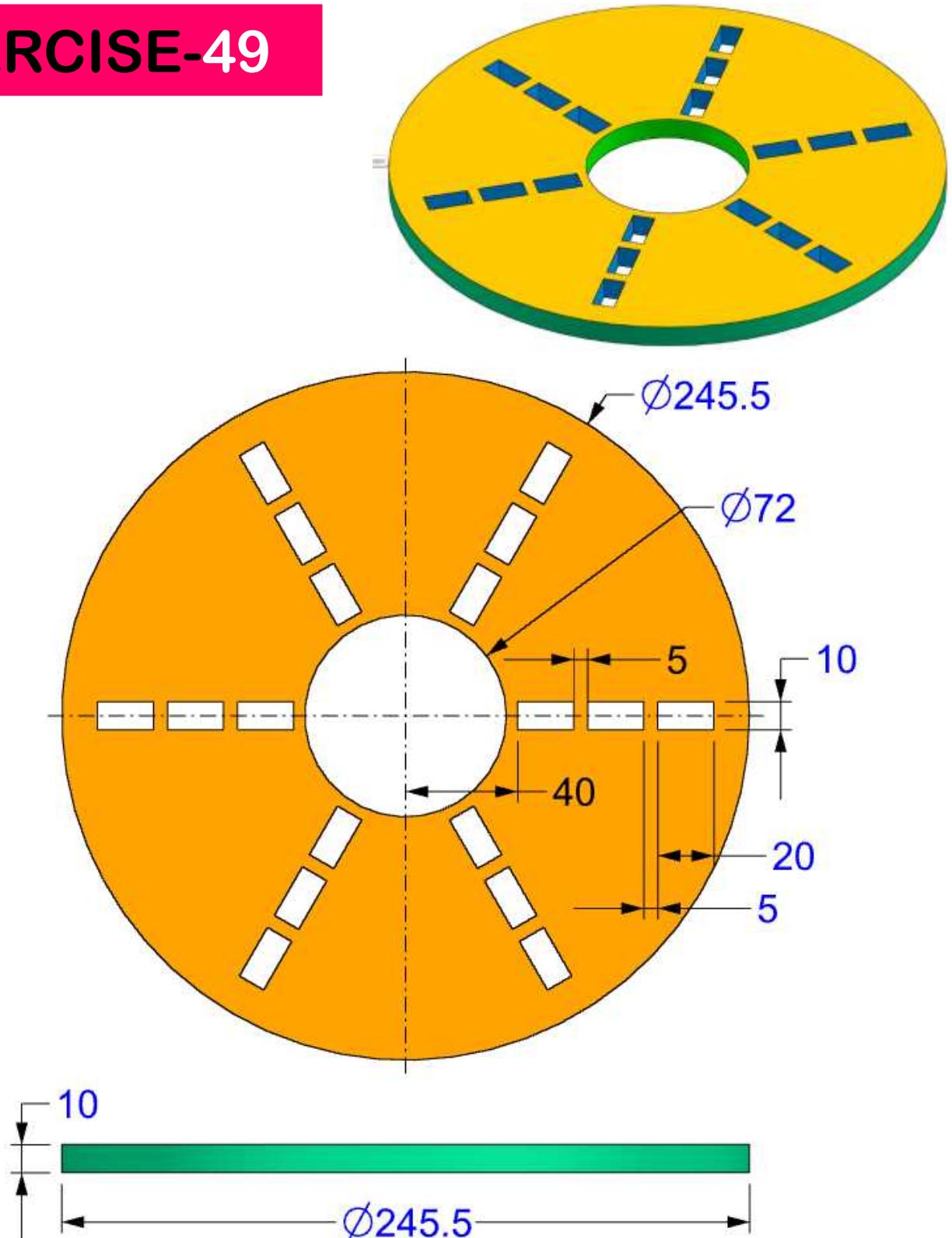
# EXERCISE-47



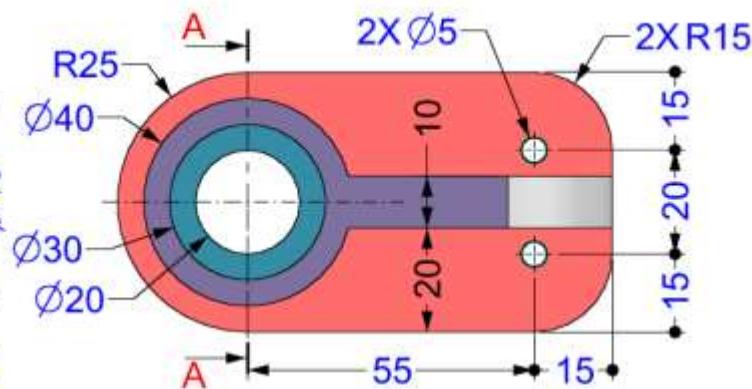
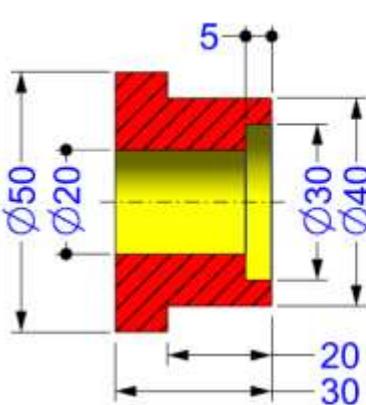
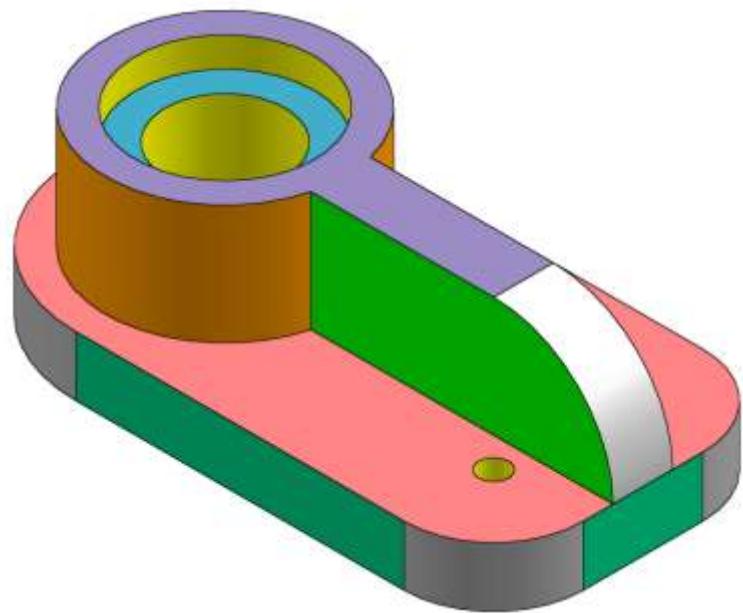
# EXERCISE-48



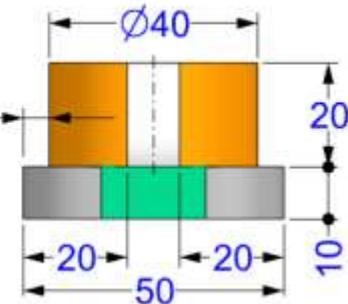
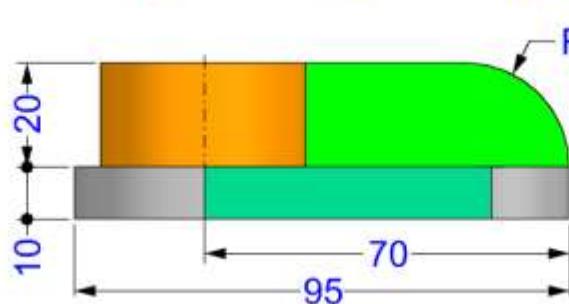
## EXERCISE-49



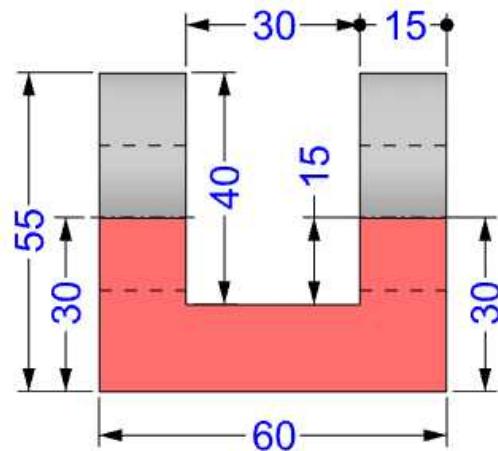
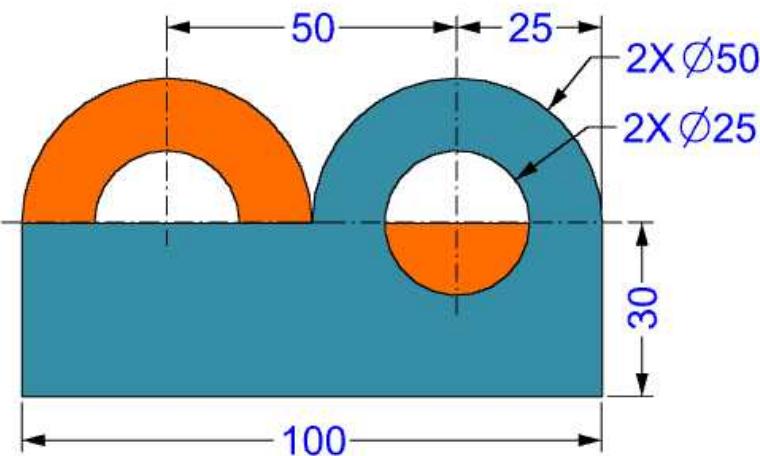
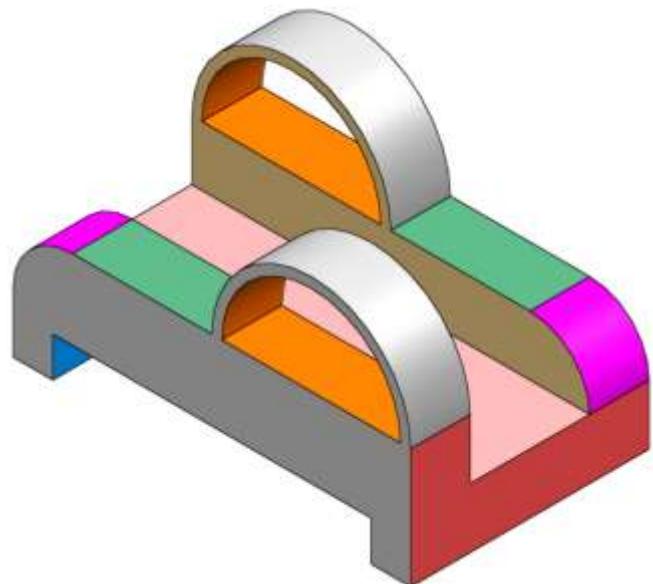
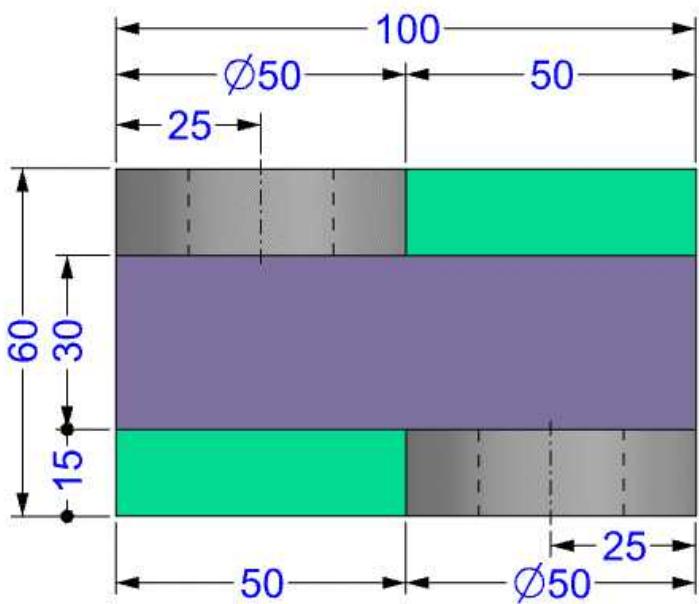
# EXERCISE-50



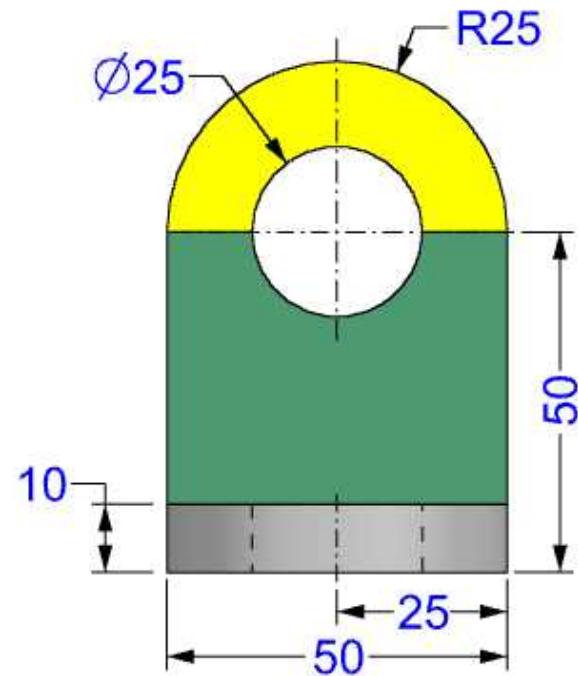
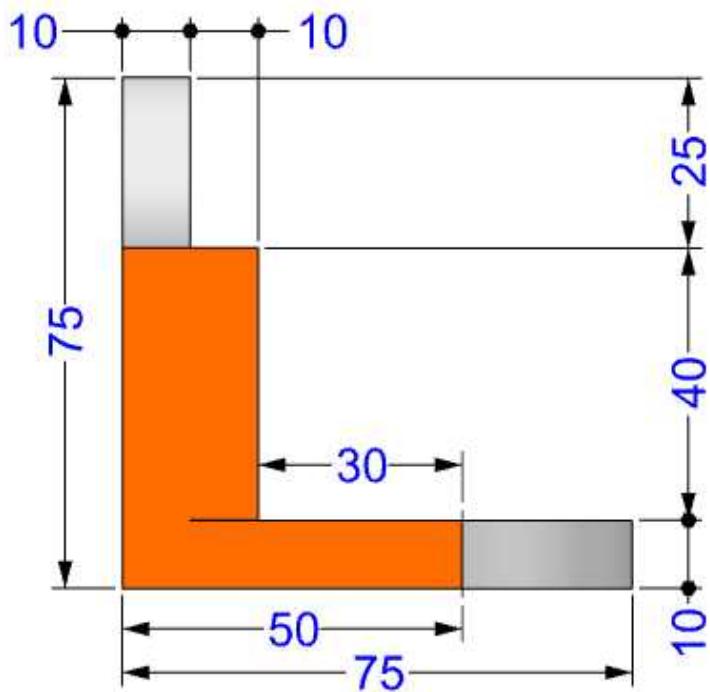
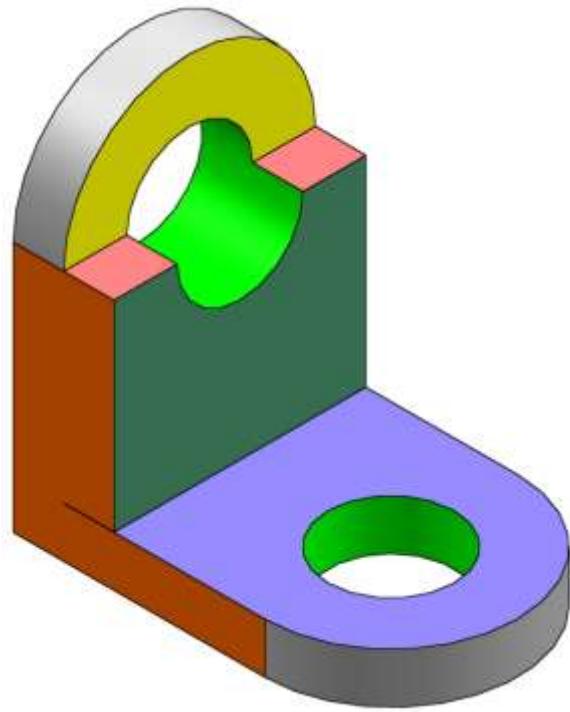
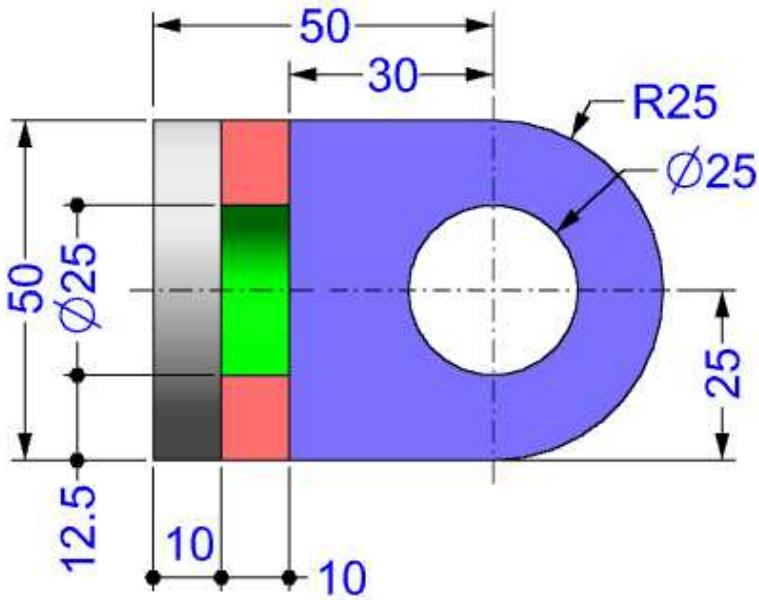
SECTION A-A



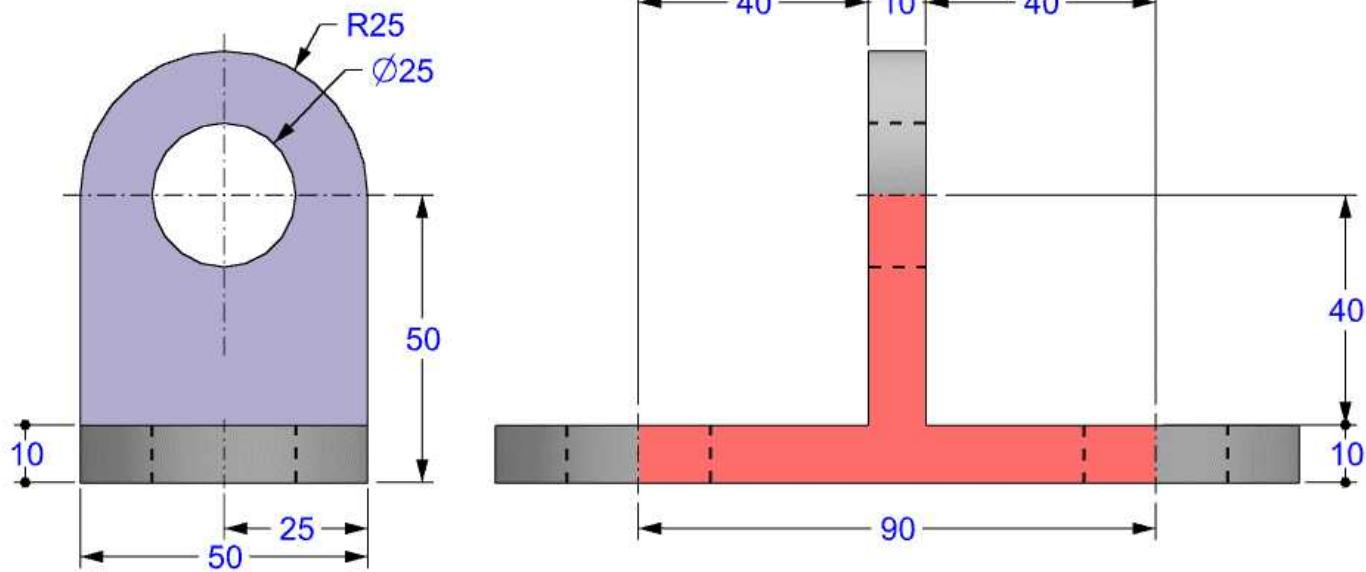
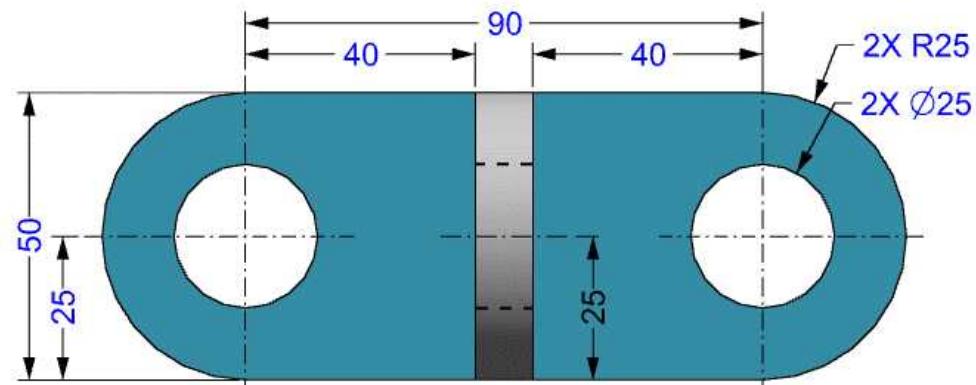
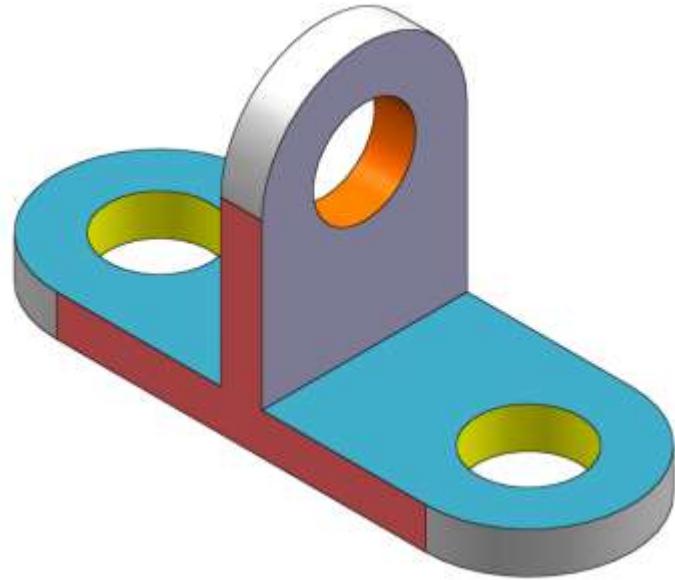
# EXERCISE-51



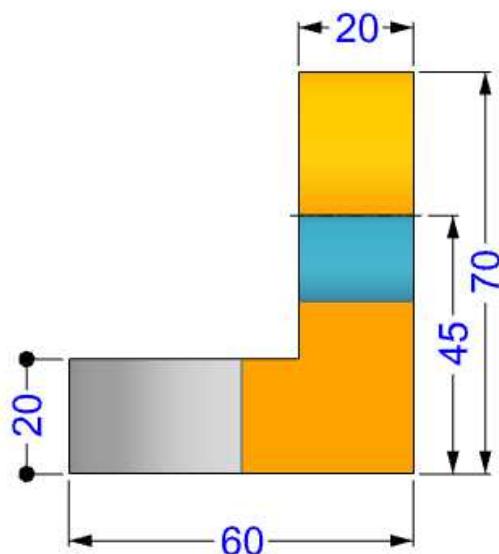
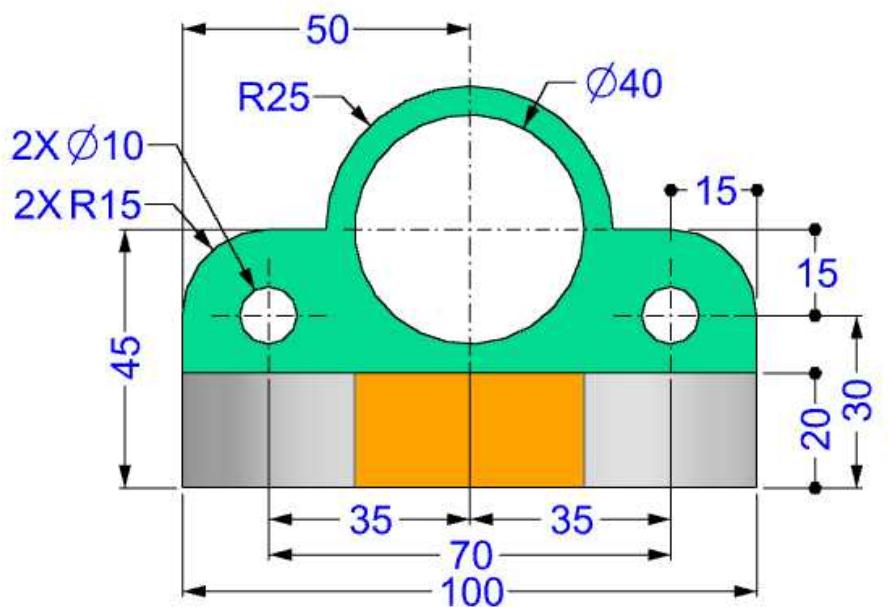
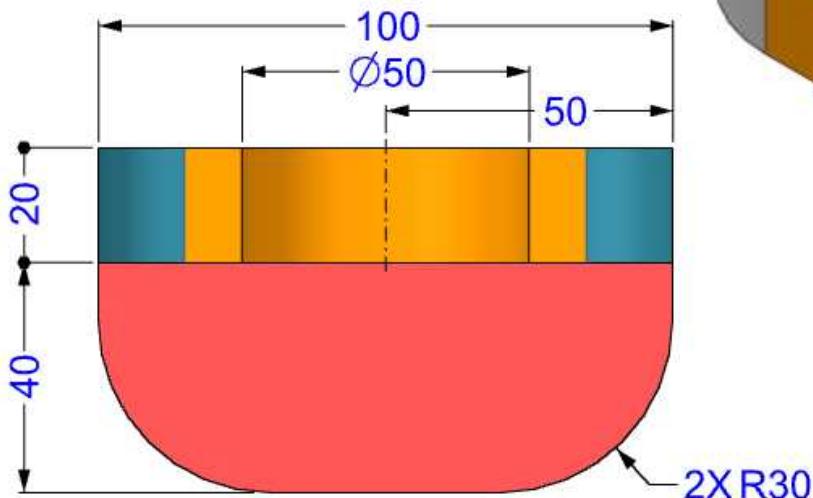
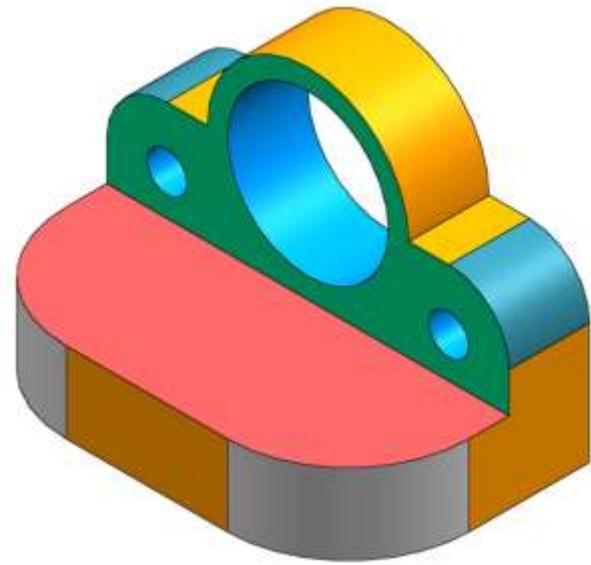
# EXERCISE-52



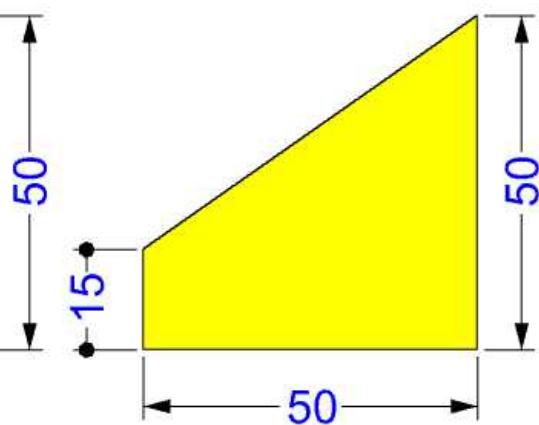
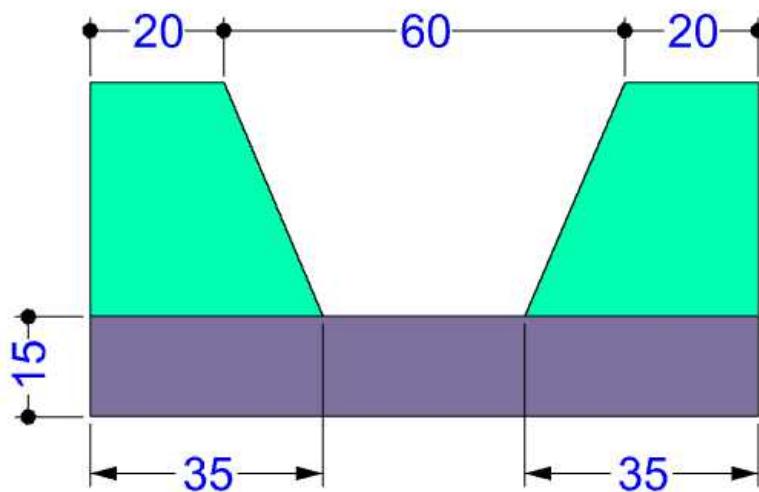
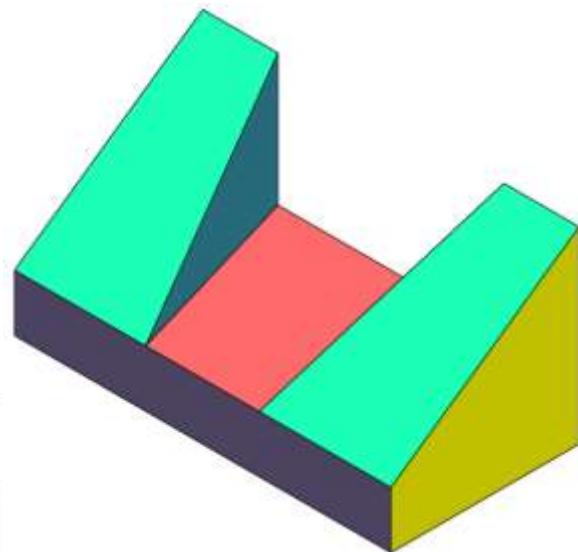
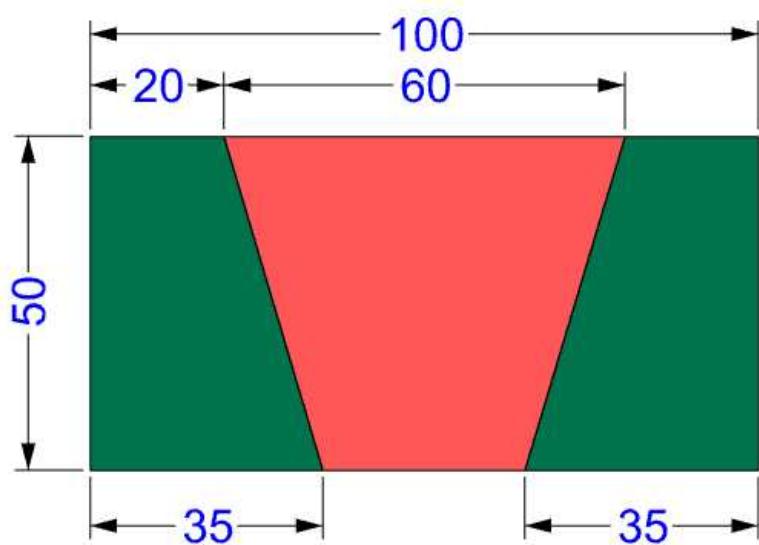
# EXERCISE-53



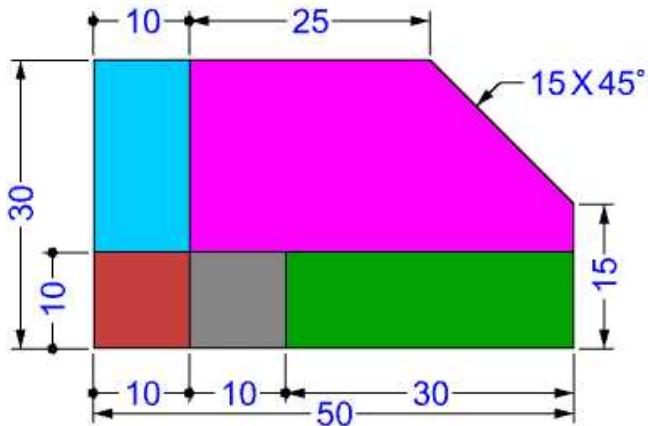
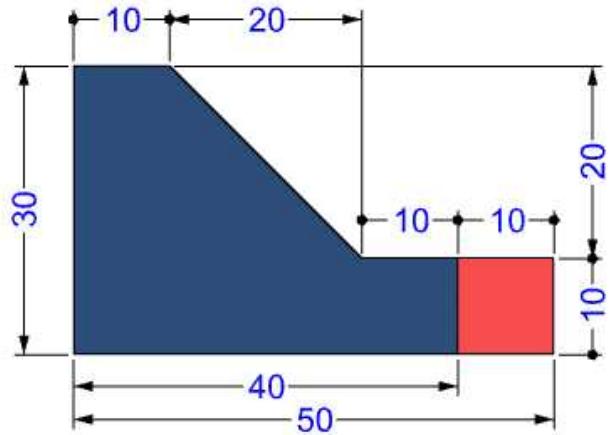
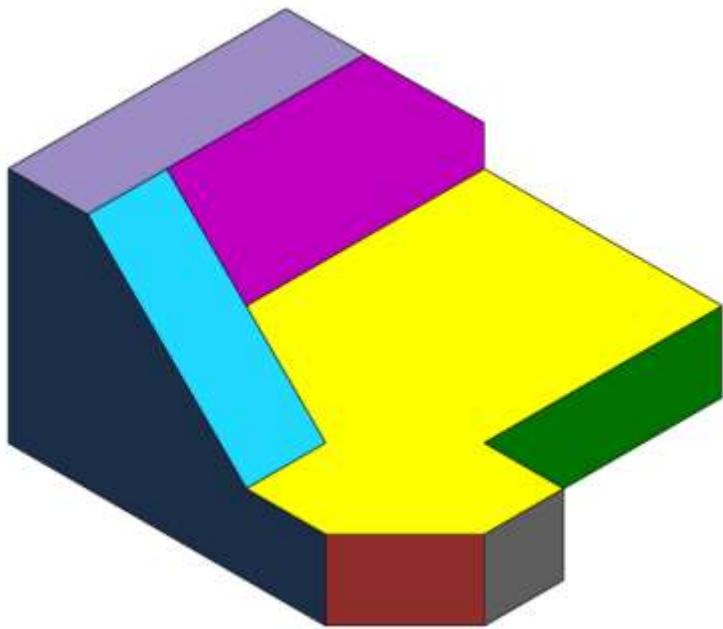
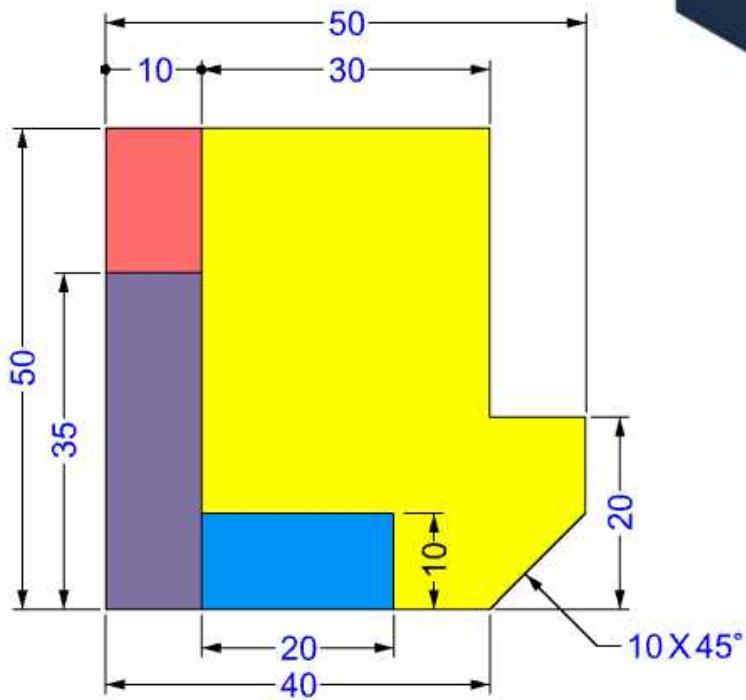
# EXERCISE-54



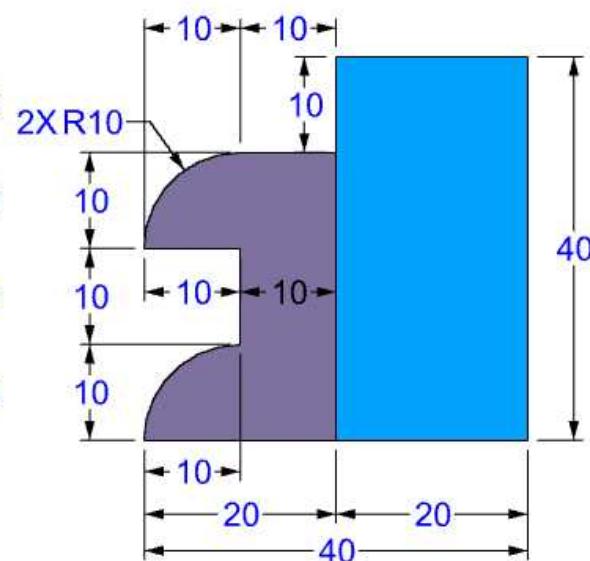
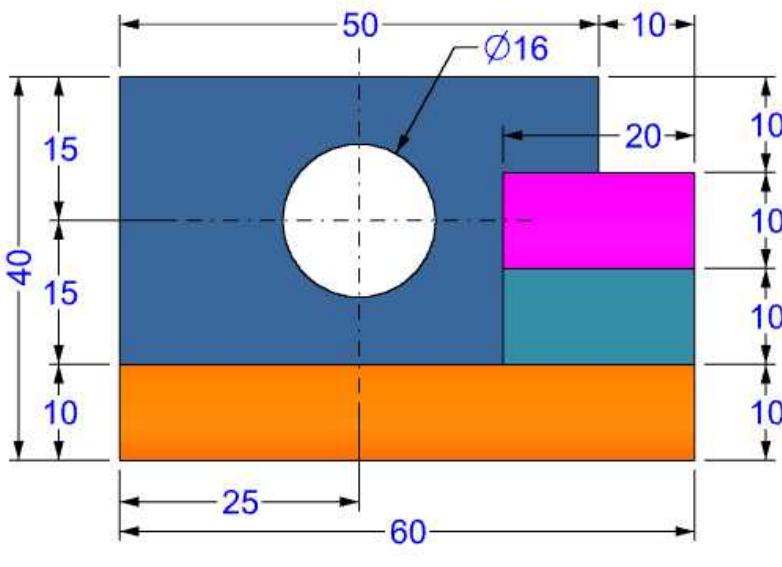
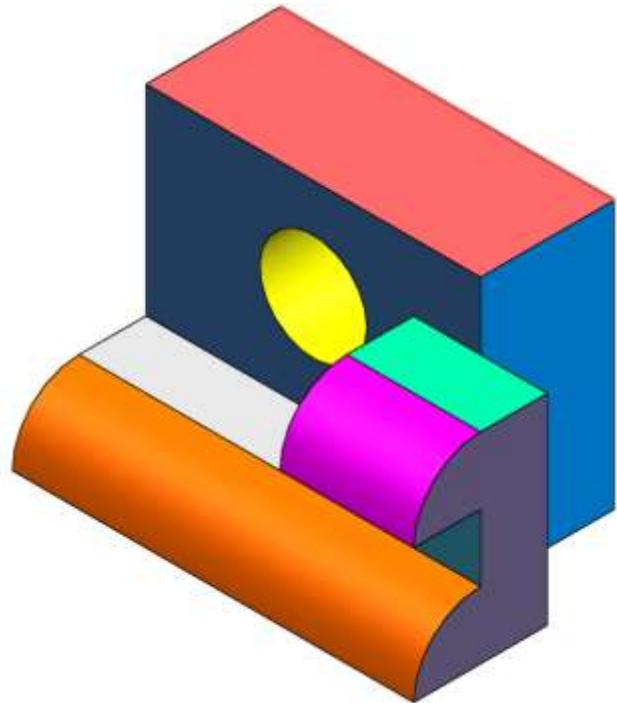
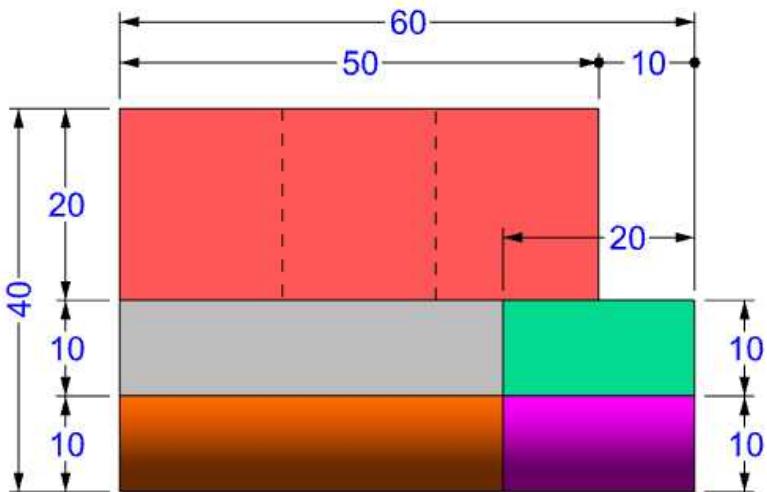
# EXERCISE-55



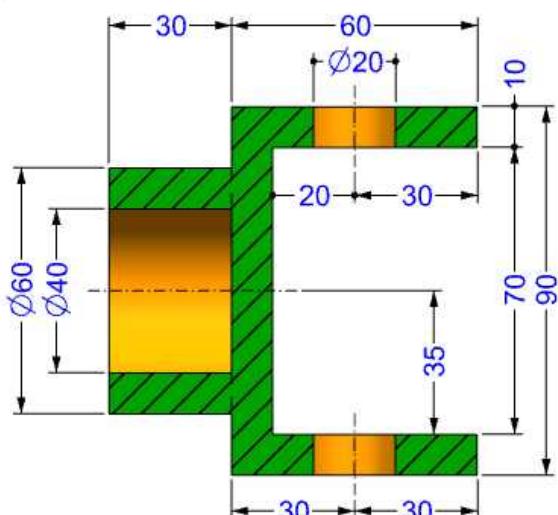
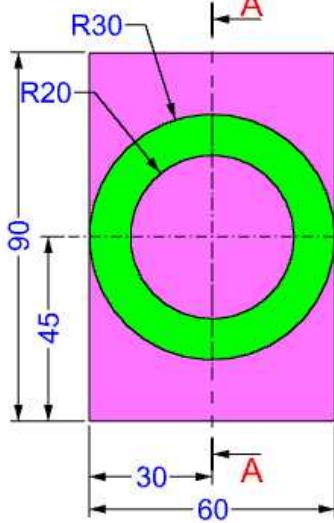
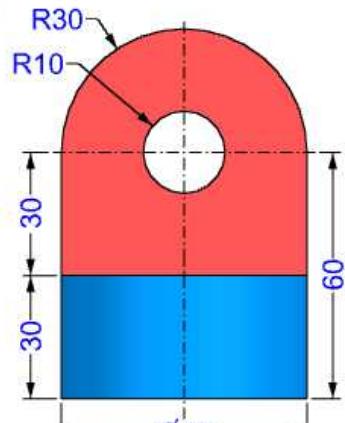
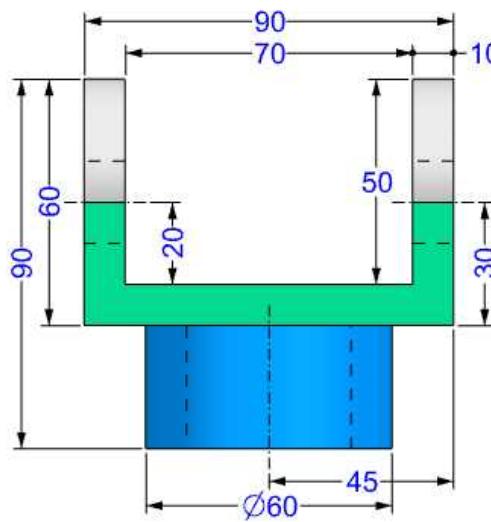
# EXERCISE-56



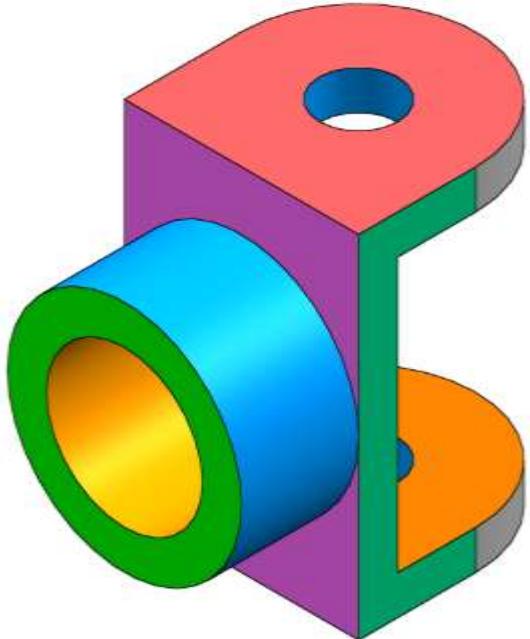
# EXERCISE-57



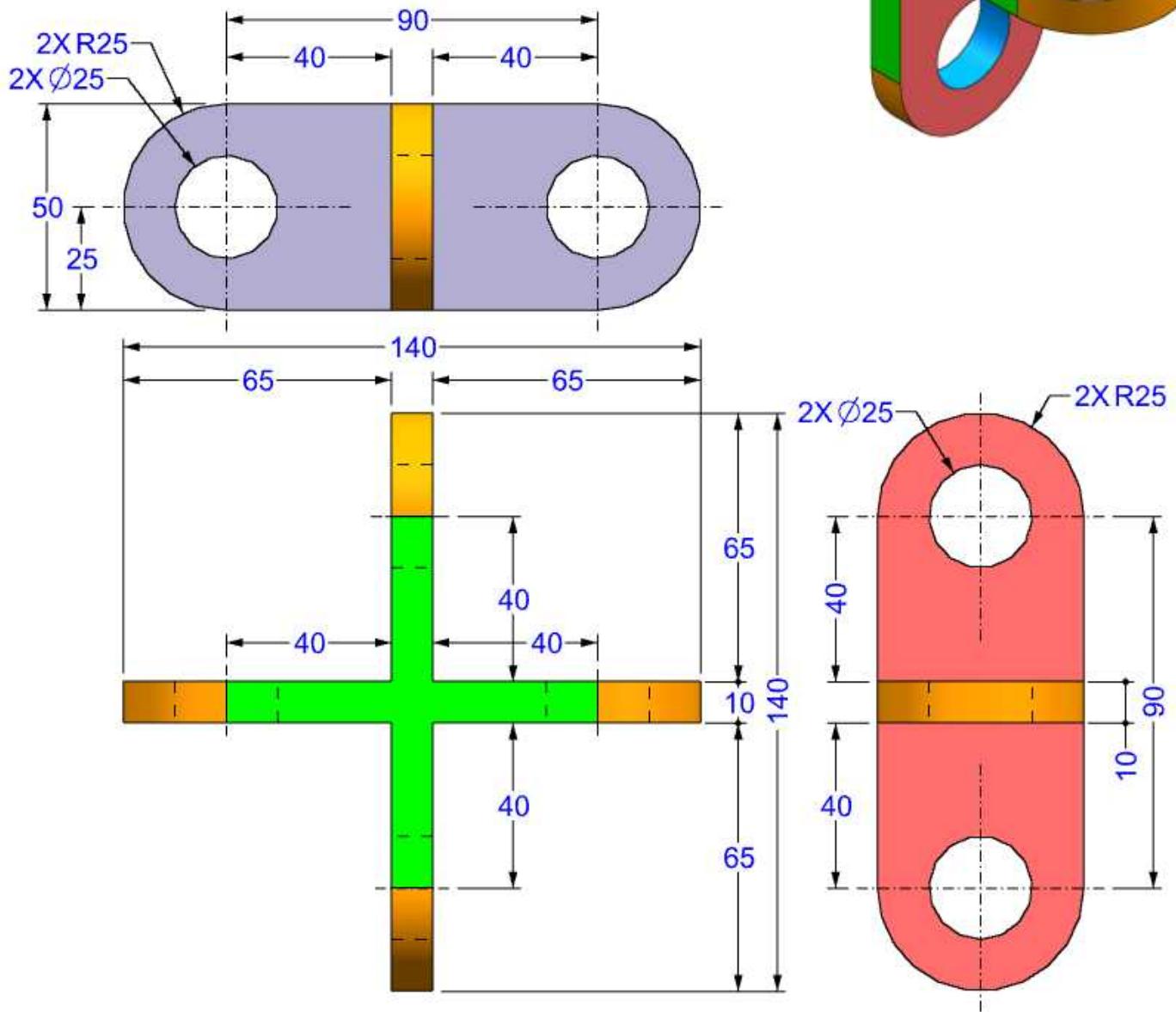
# EXERCISE-58



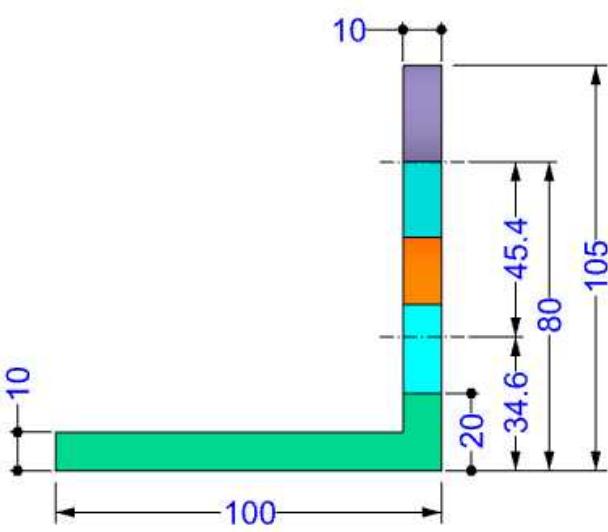
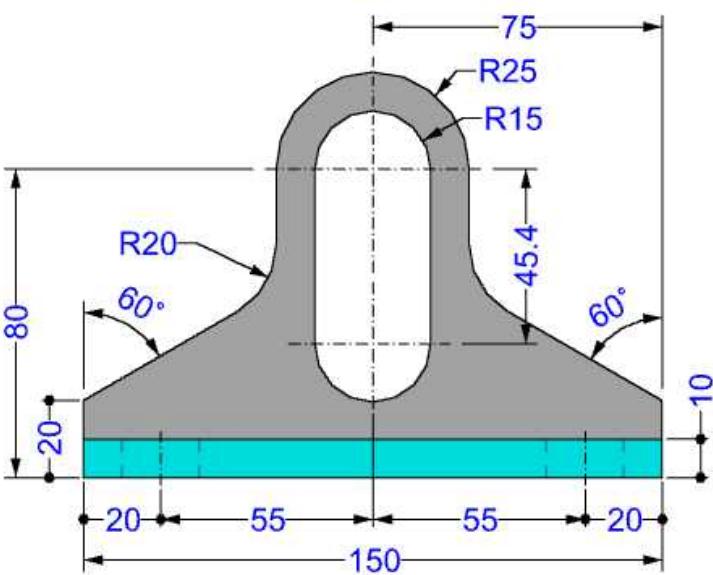
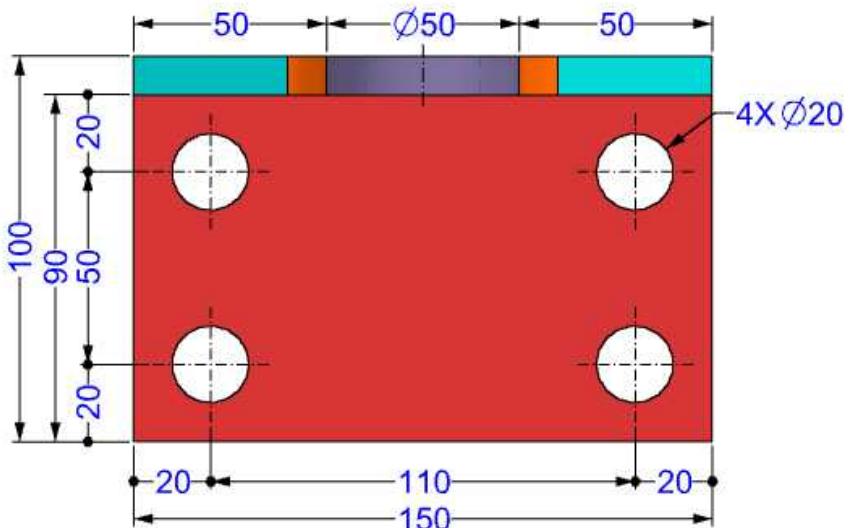
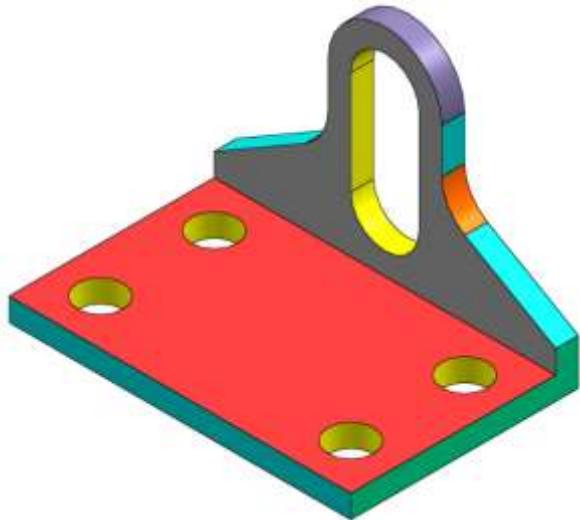
SECTION A-A



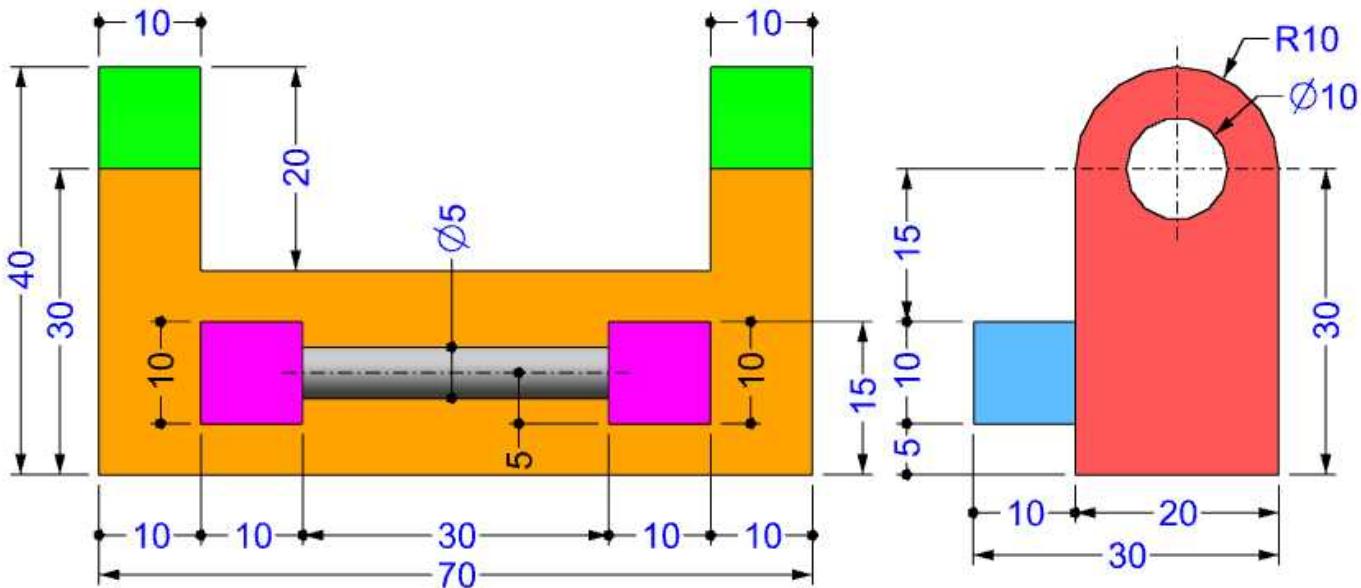
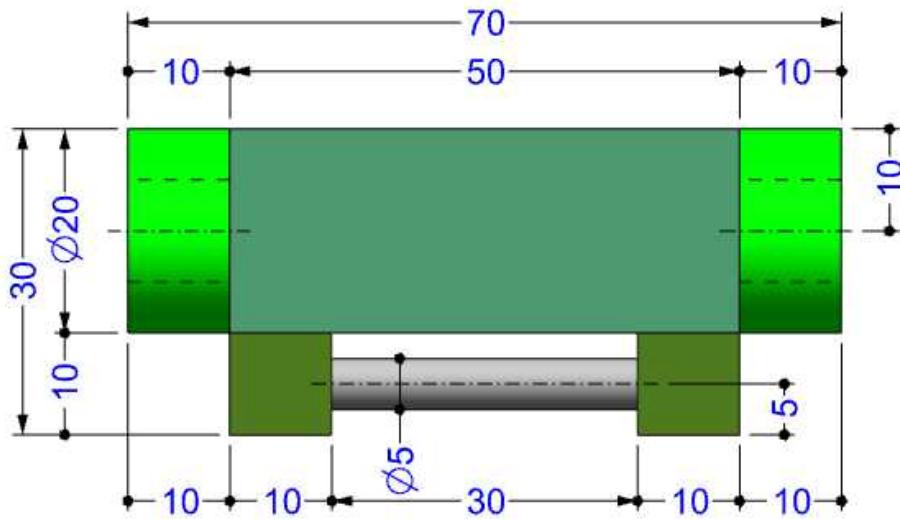
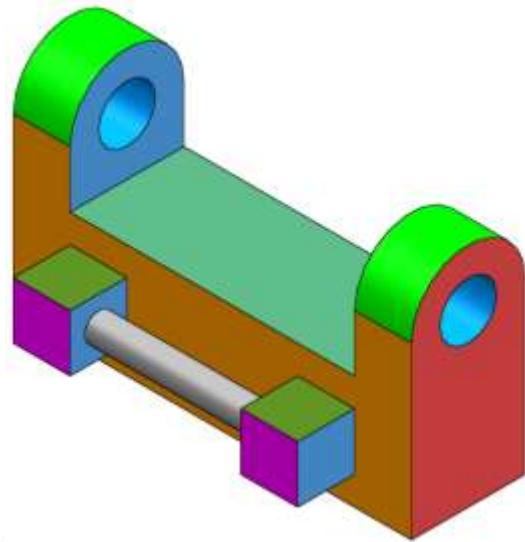
# EXERCISE-59



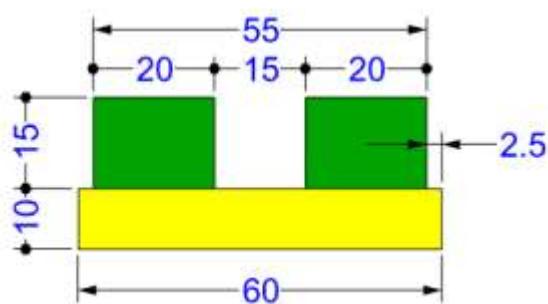
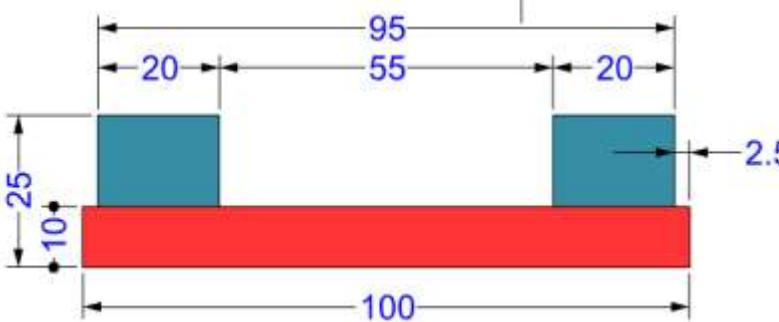
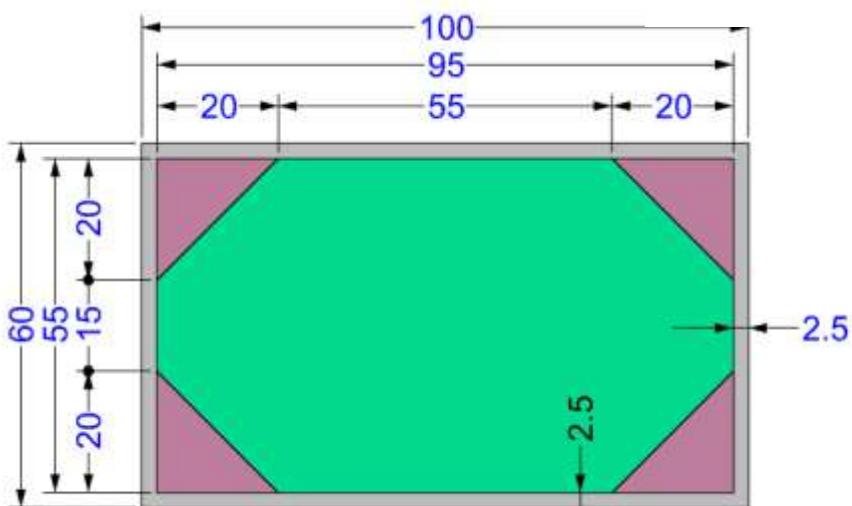
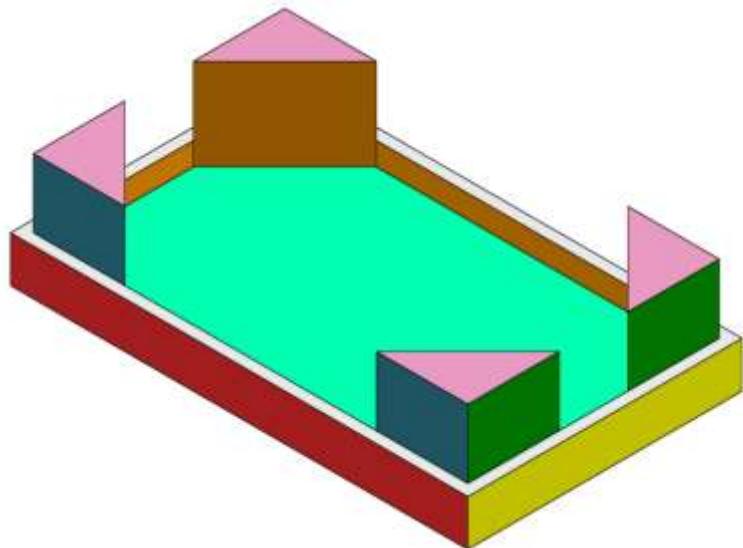
# EXERCISE-60



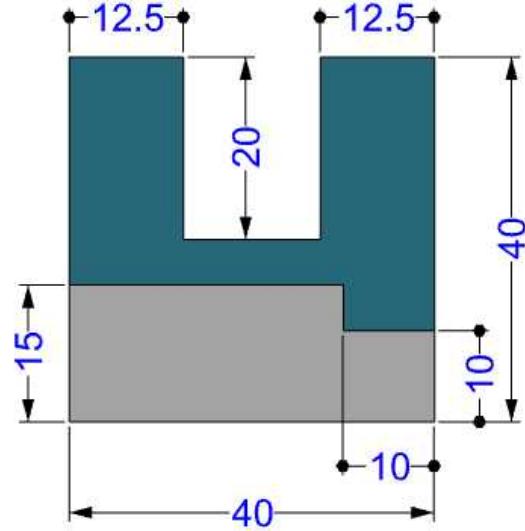
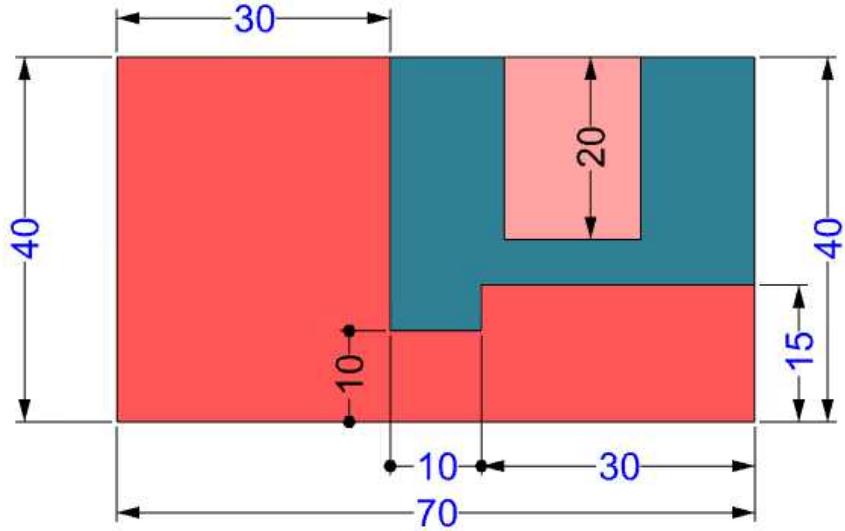
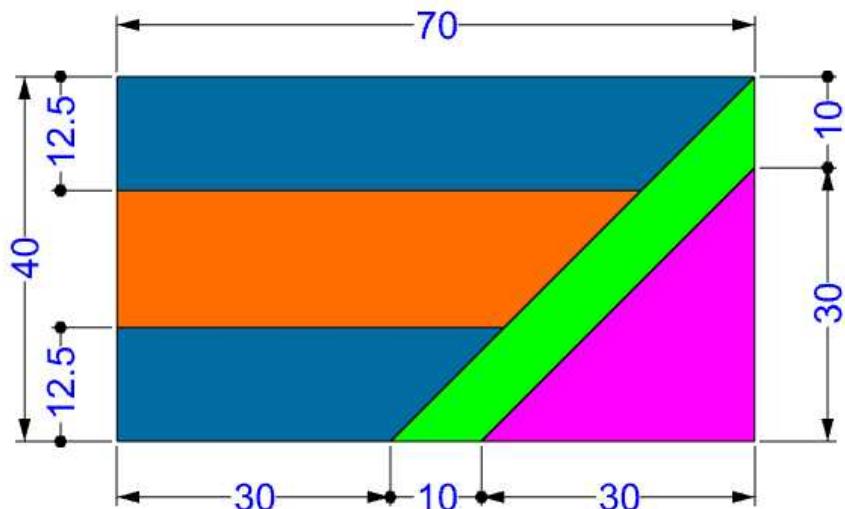
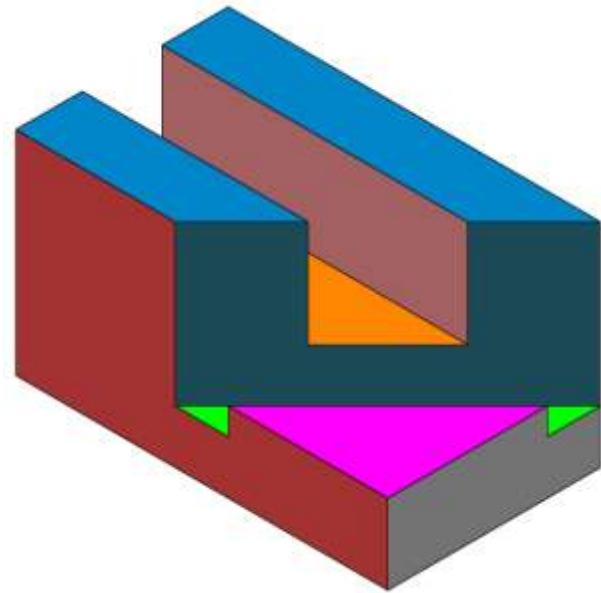
# EXERCISE-61



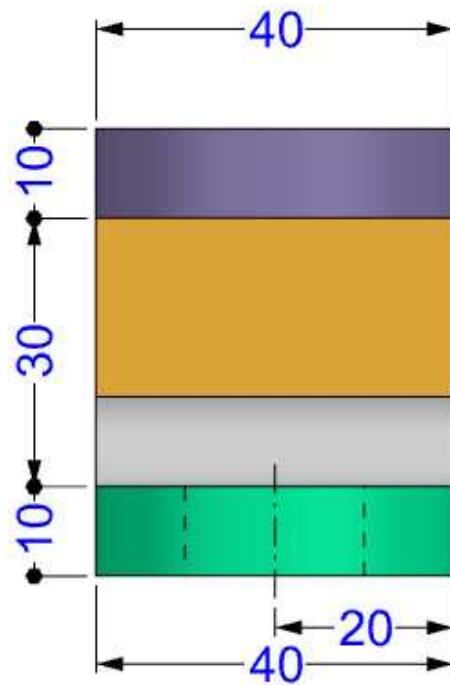
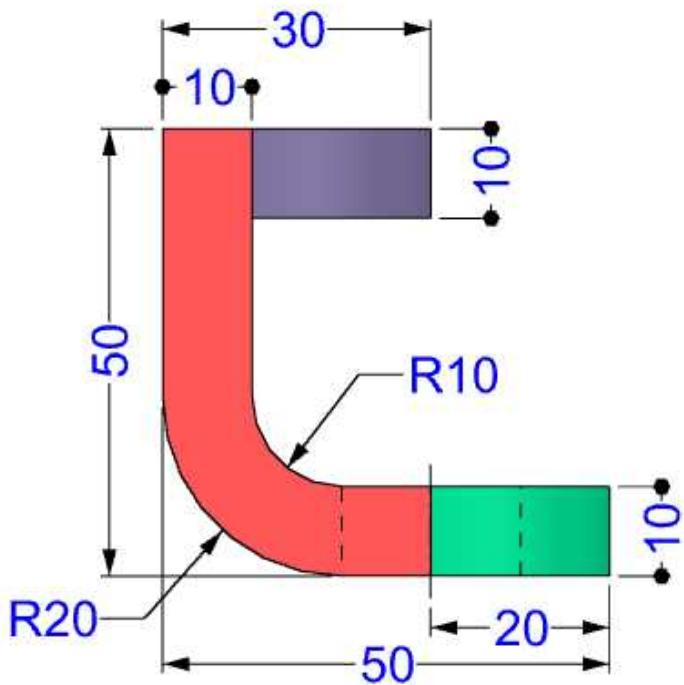
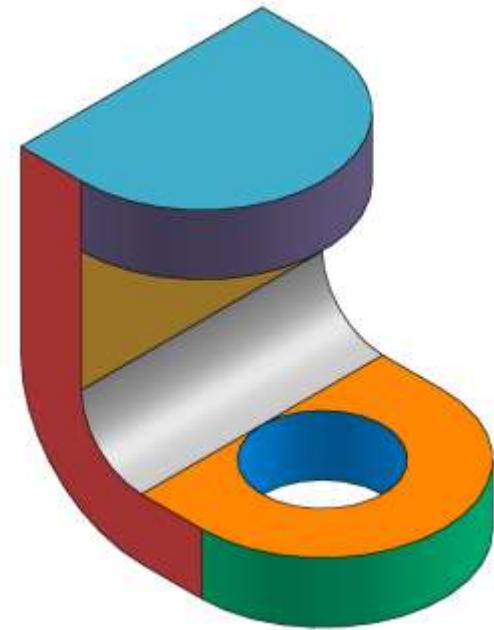
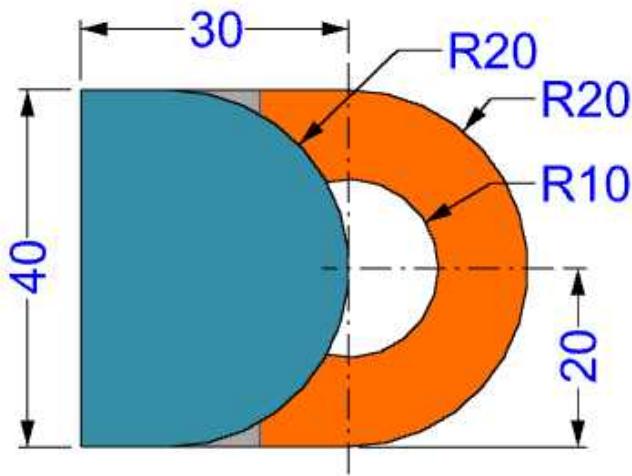
# EXERCISE-62



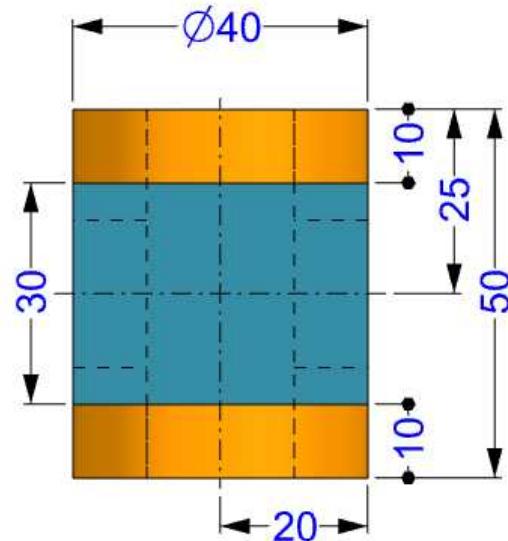
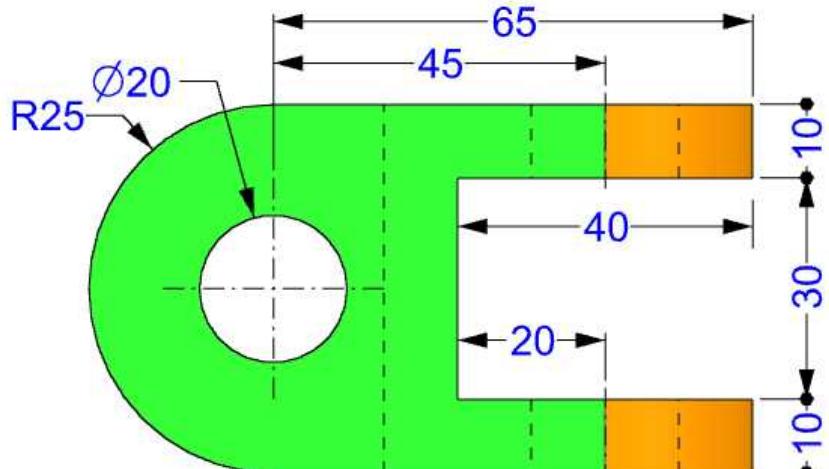
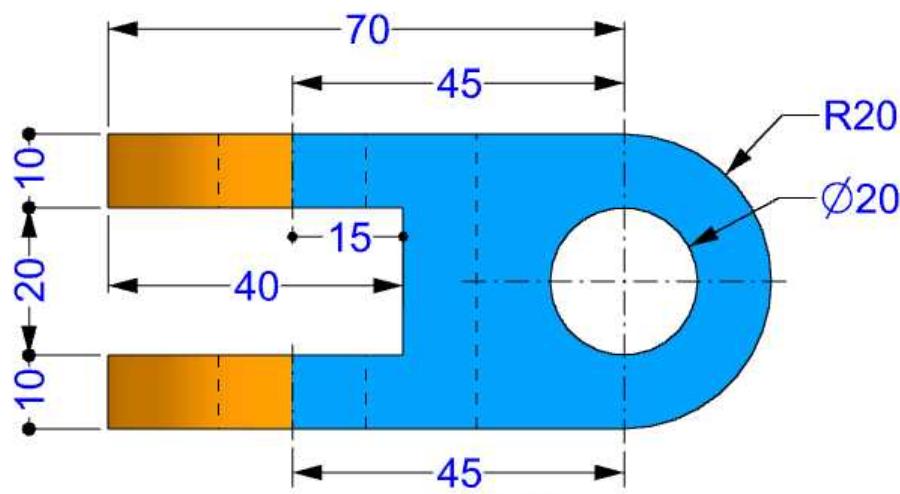
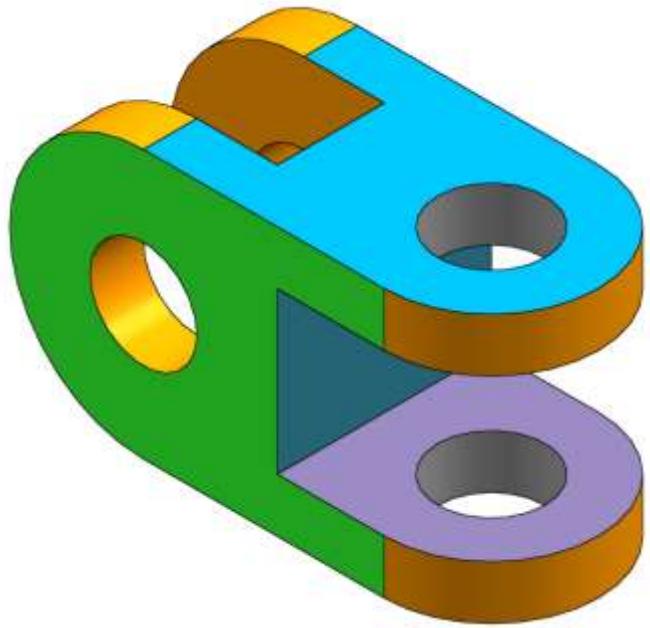
# EXERCISE-63



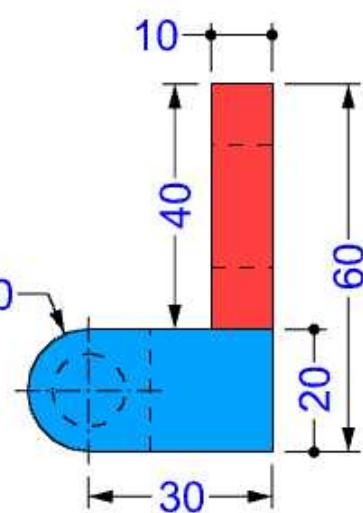
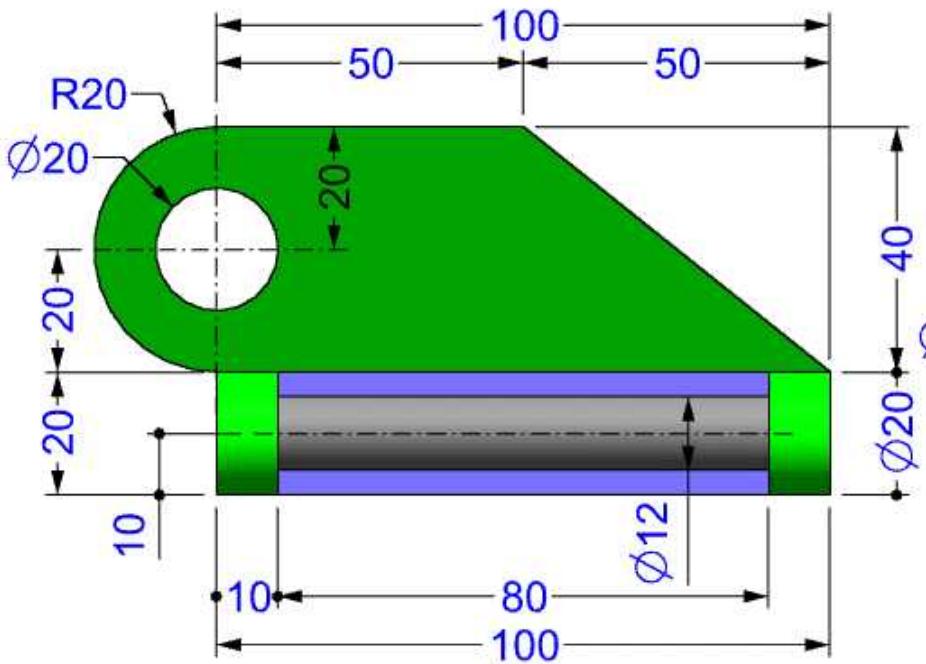
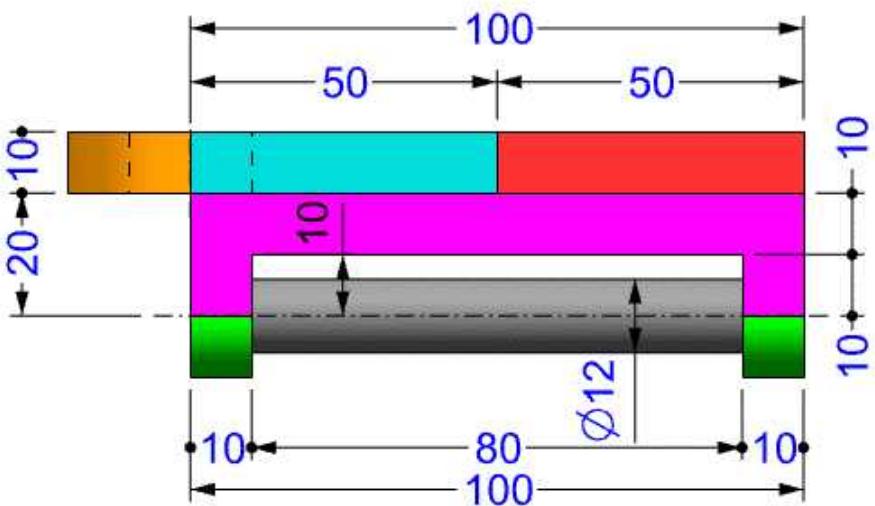
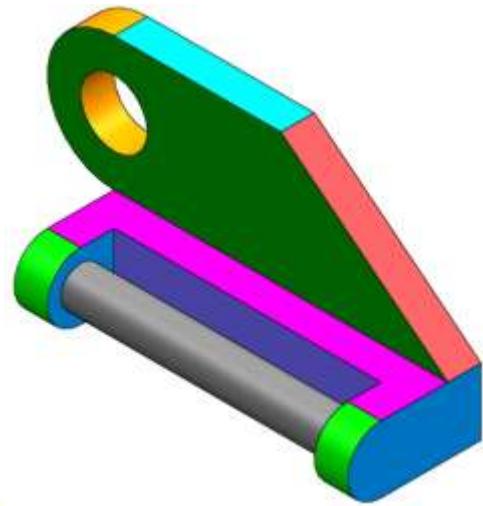
# EXERCISE-64



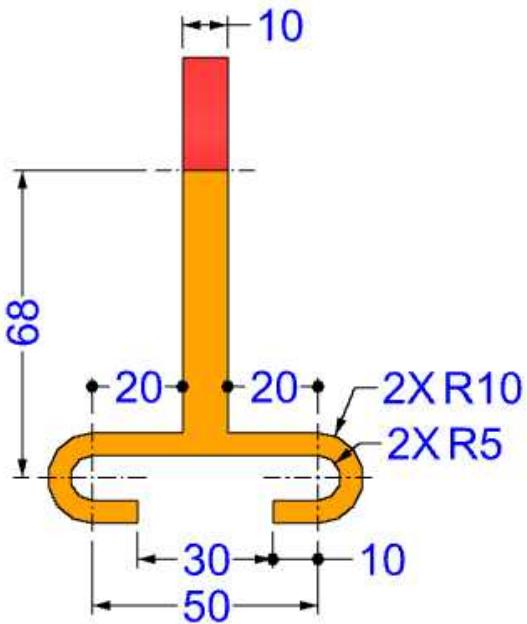
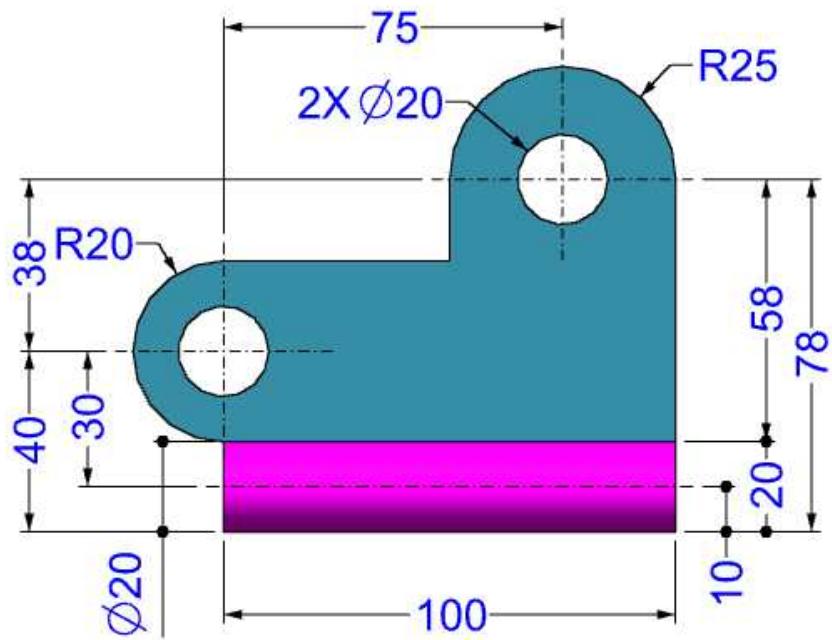
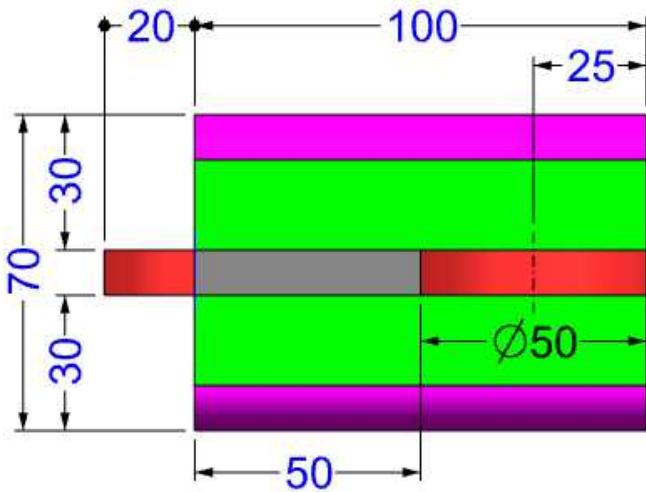
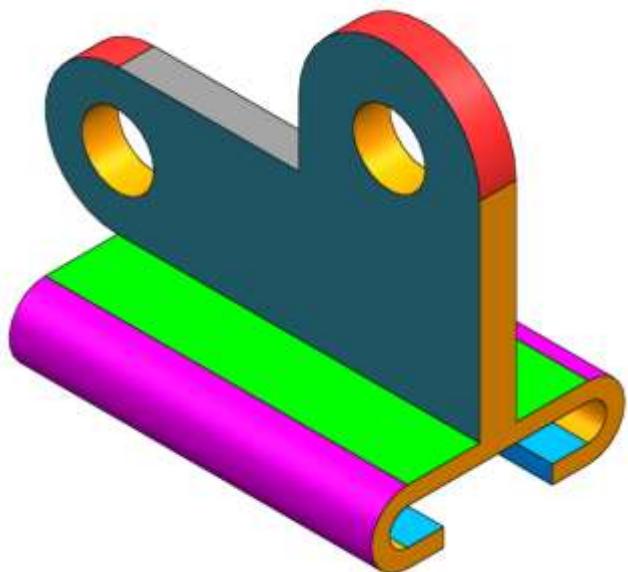
# EXERCISE-65



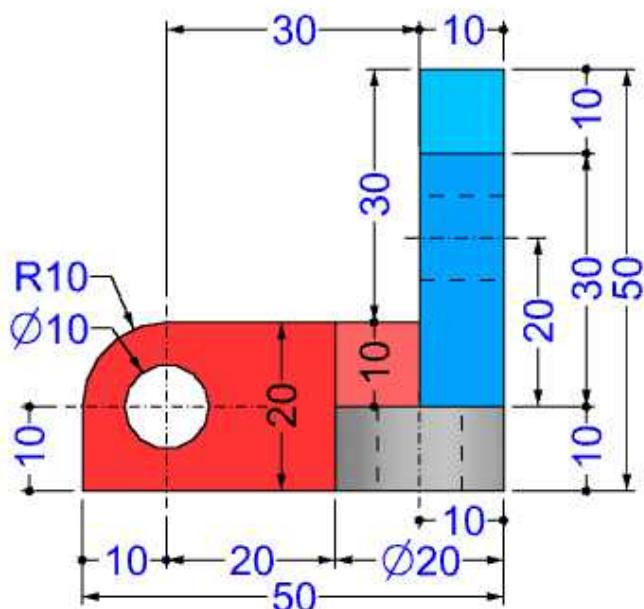
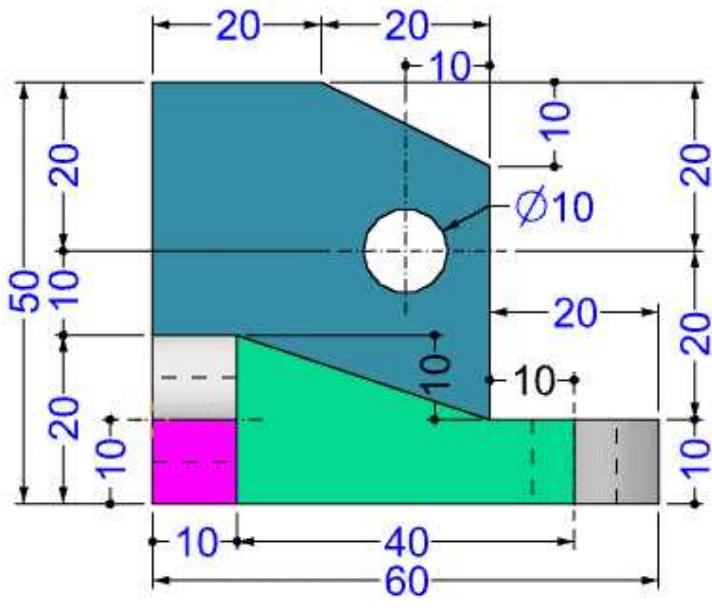
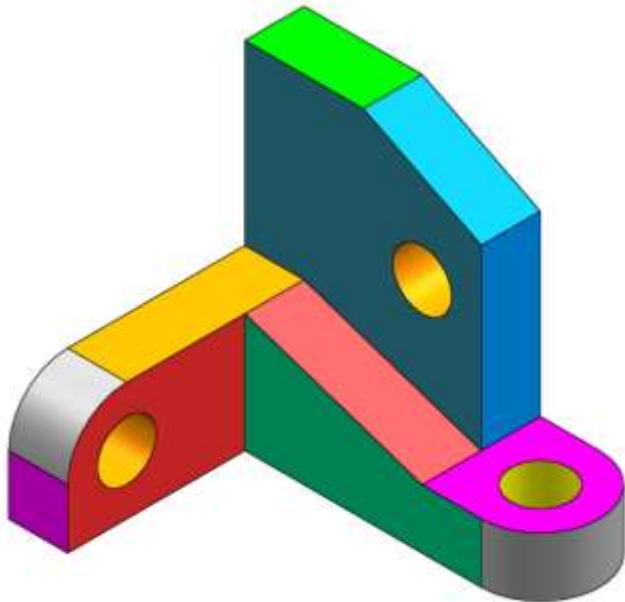
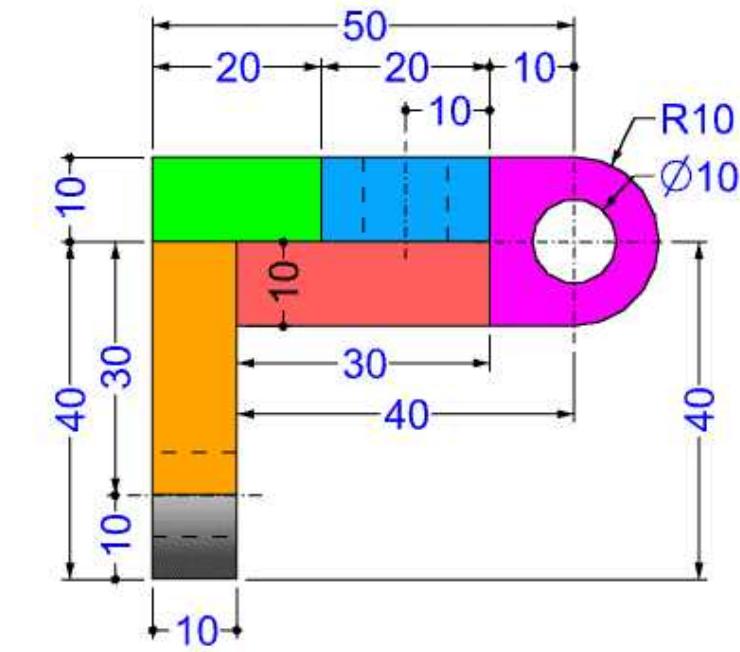
# EXERCISE-66



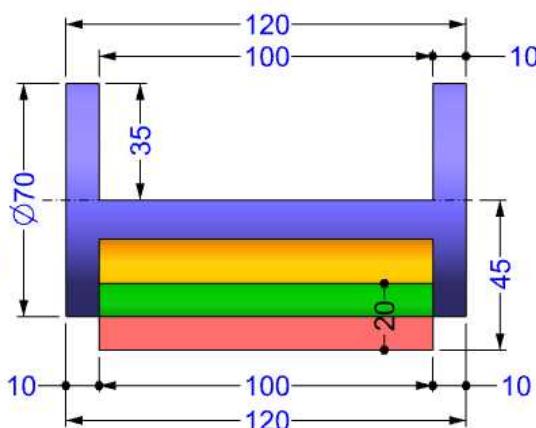
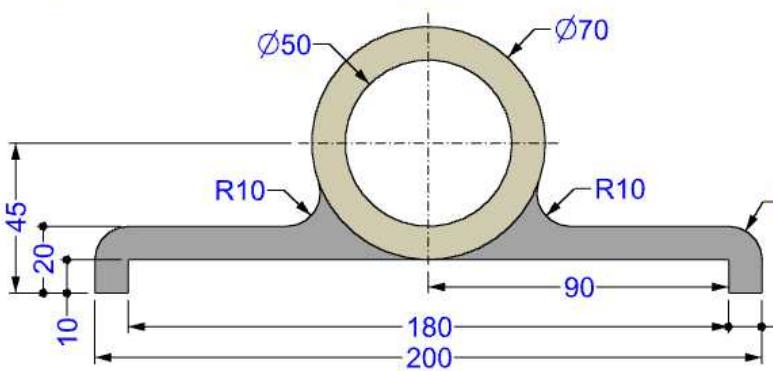
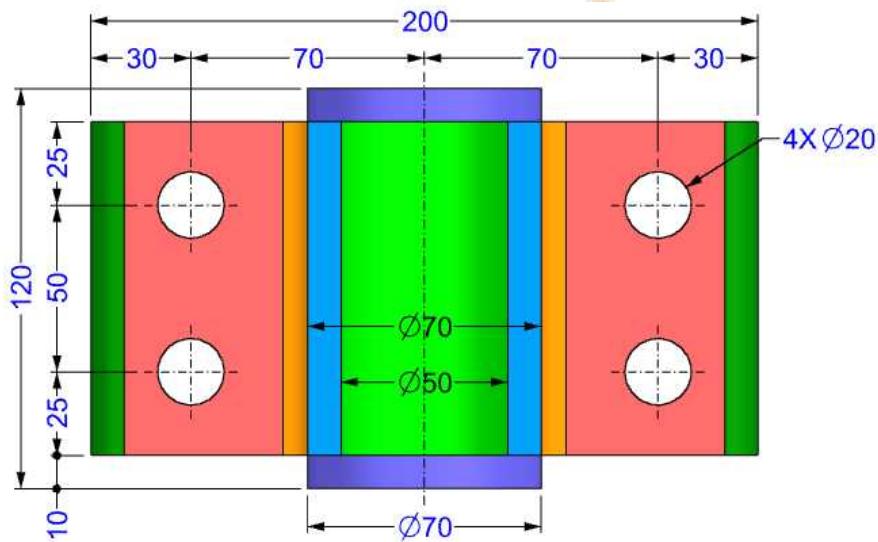
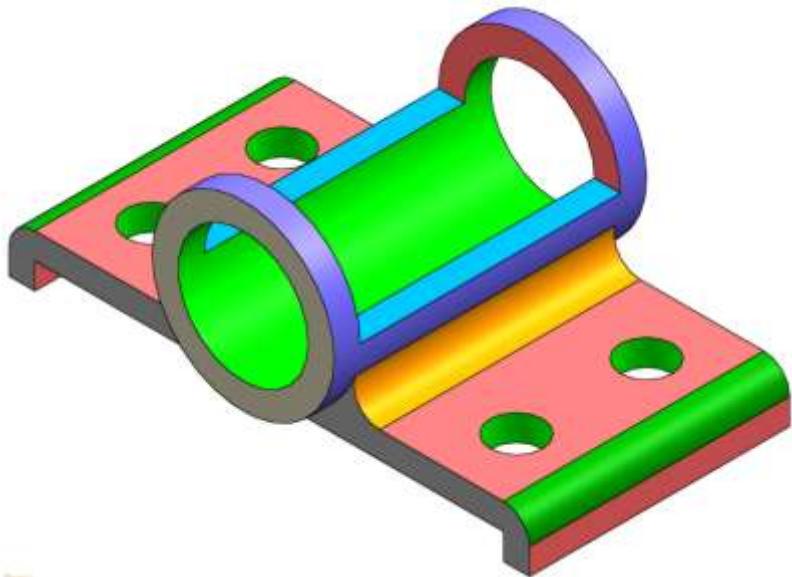
# EXERCISE-67



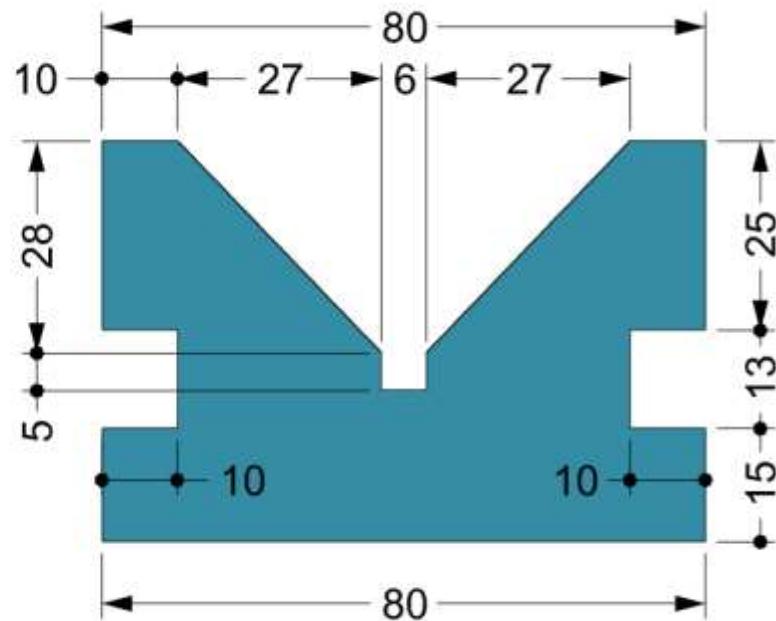
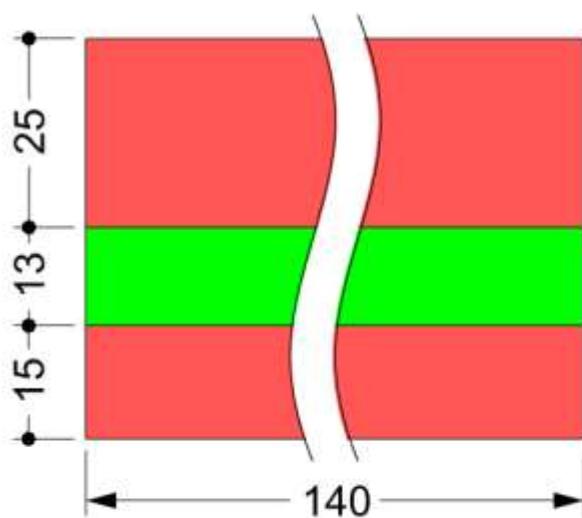
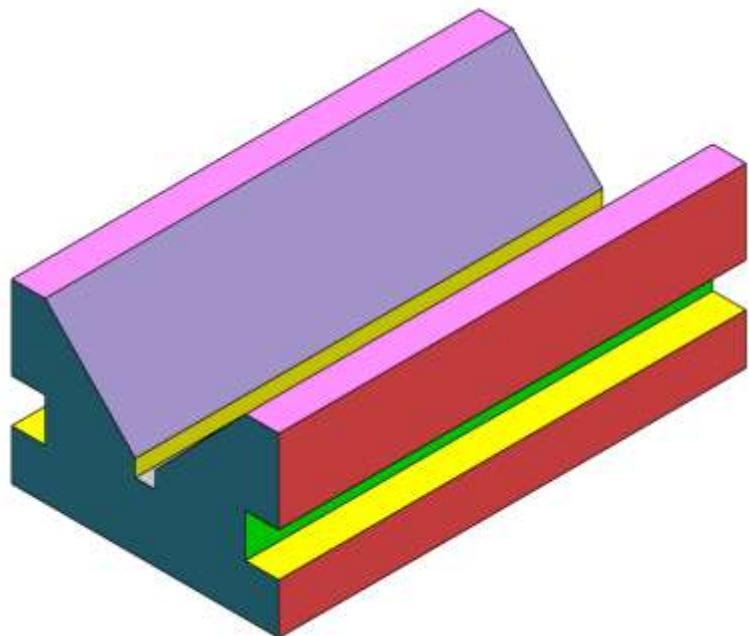
# EXERCISE-68



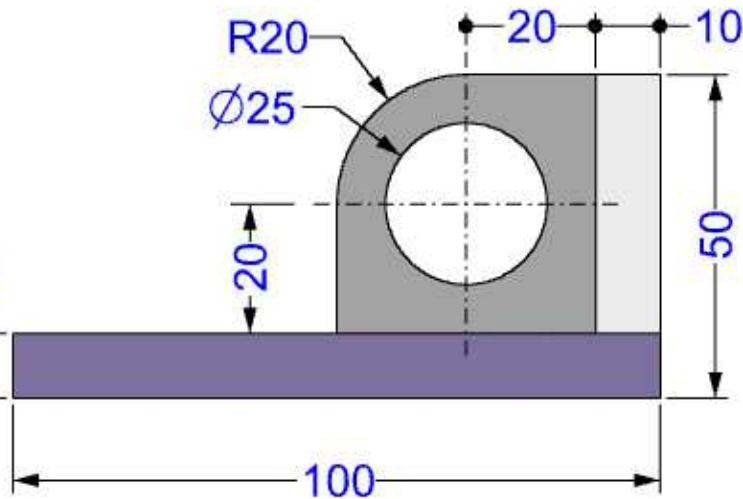
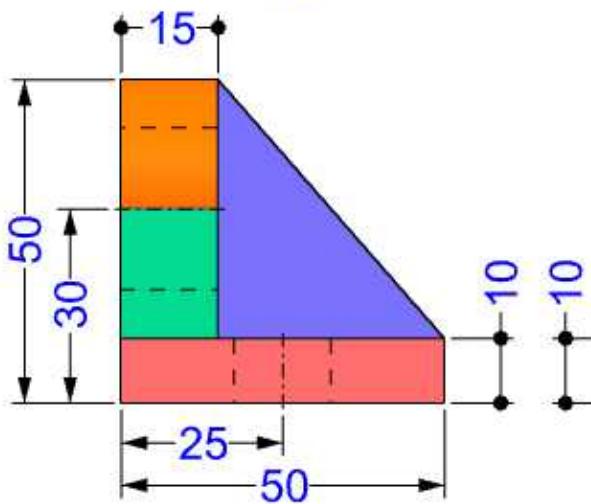
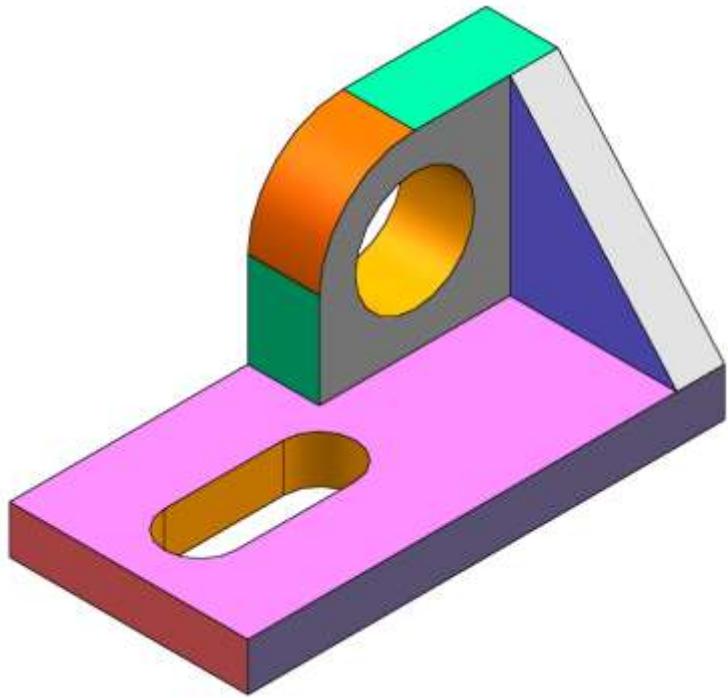
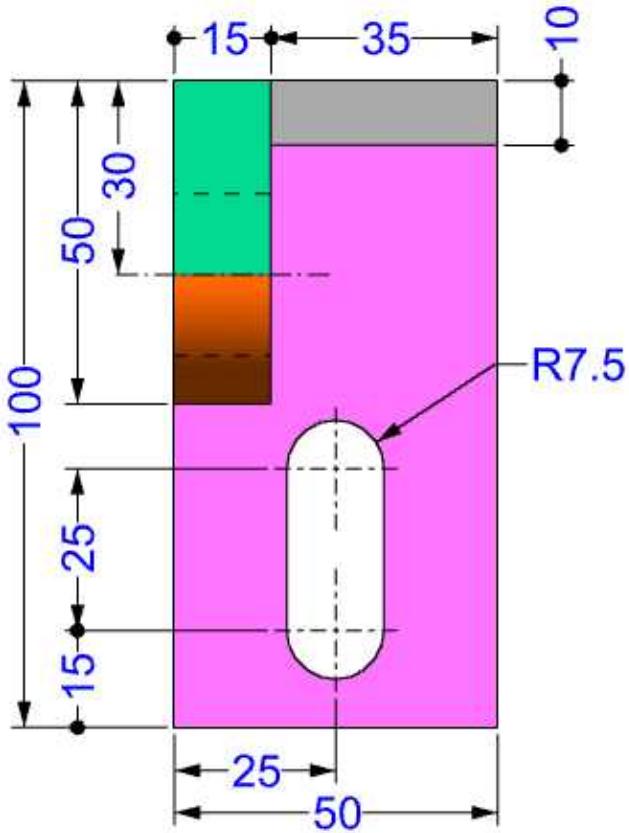
# EXERCISE-69



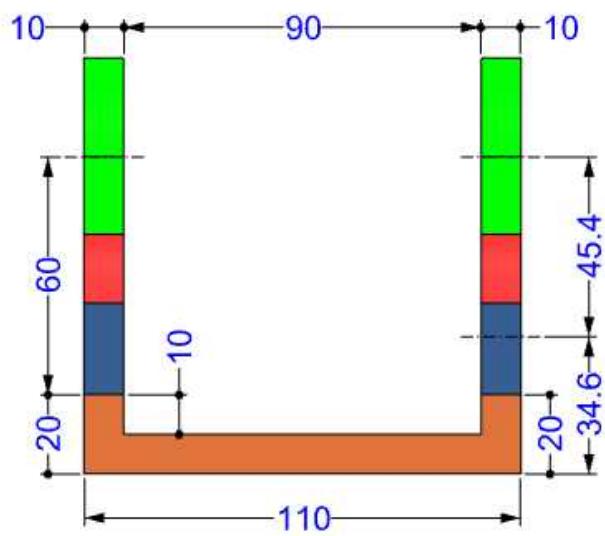
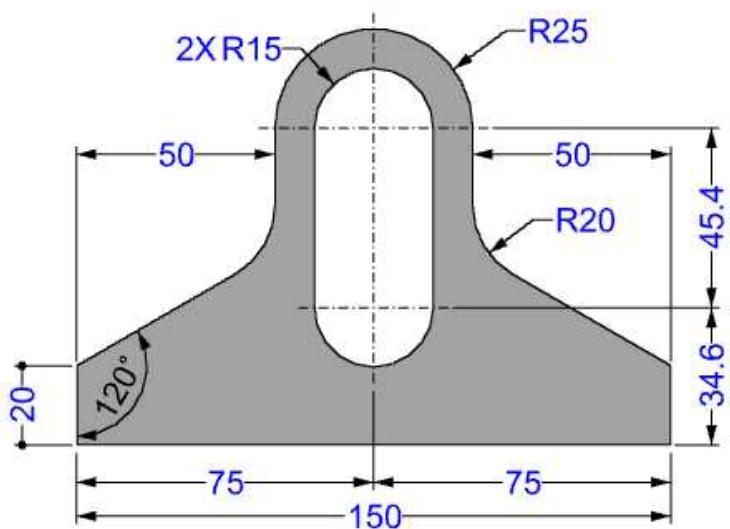
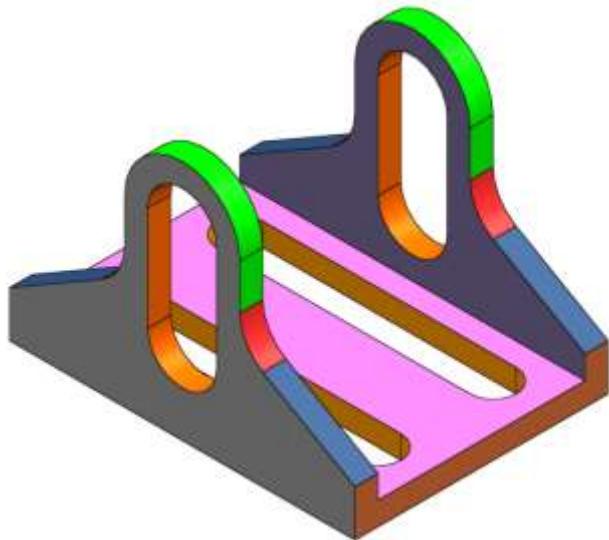
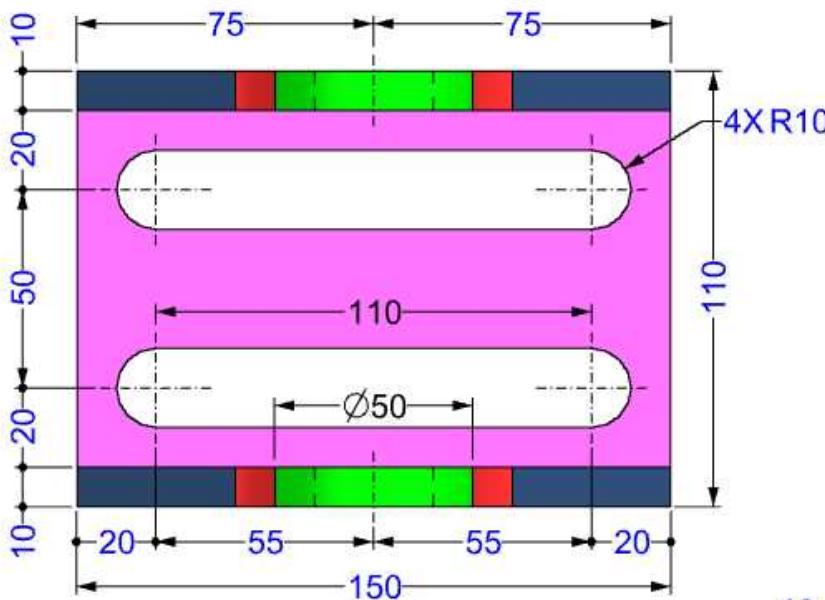
# EXERCISE-70



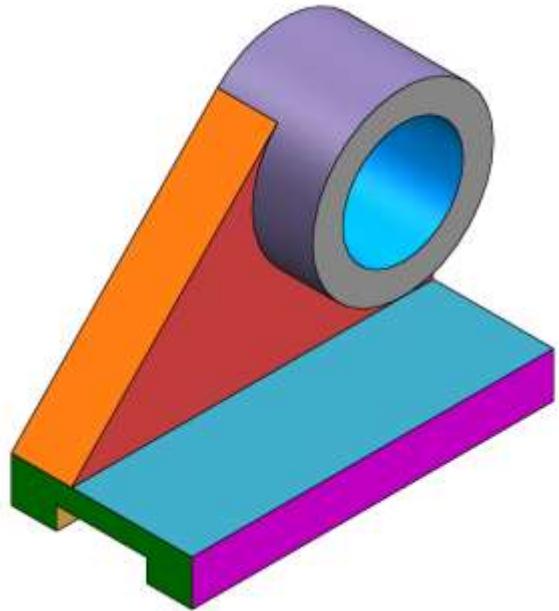
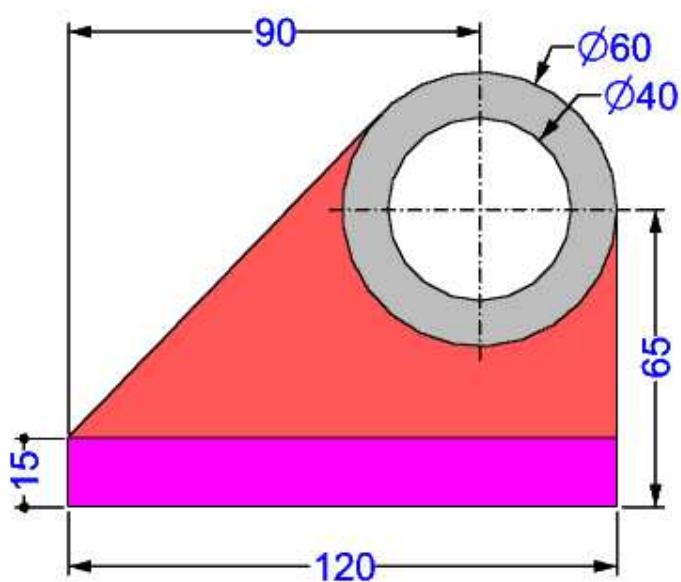
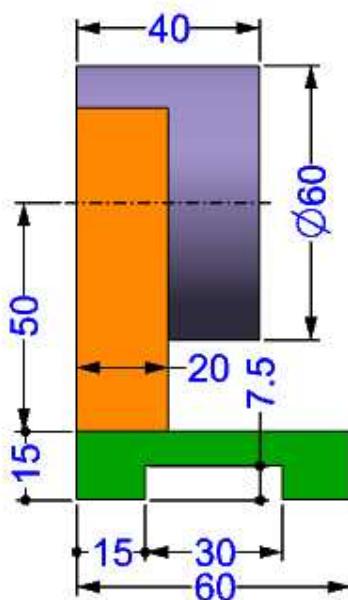
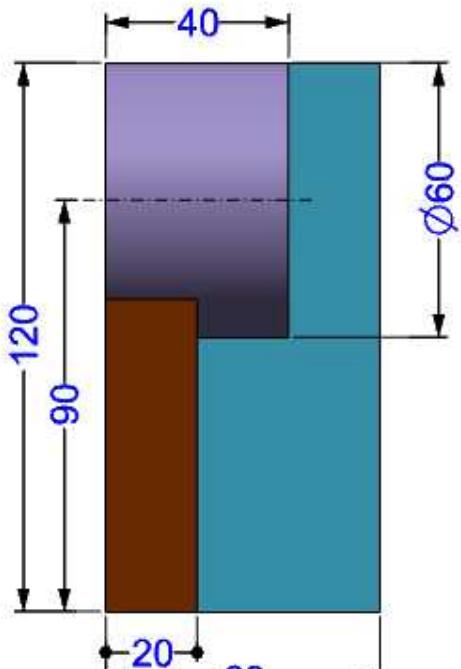
# EXERCISE-71



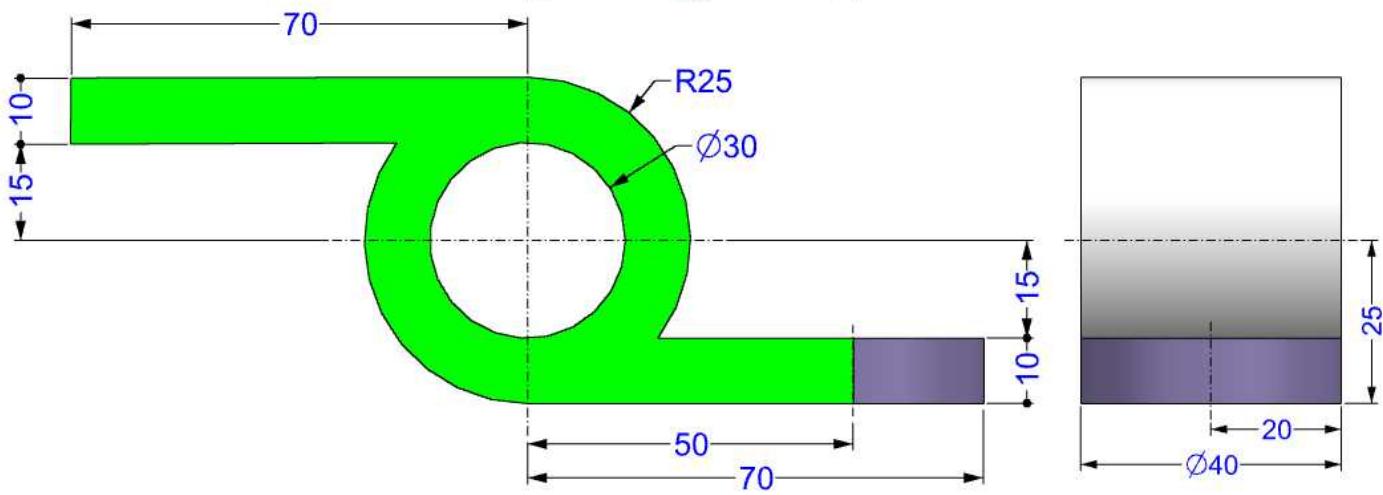
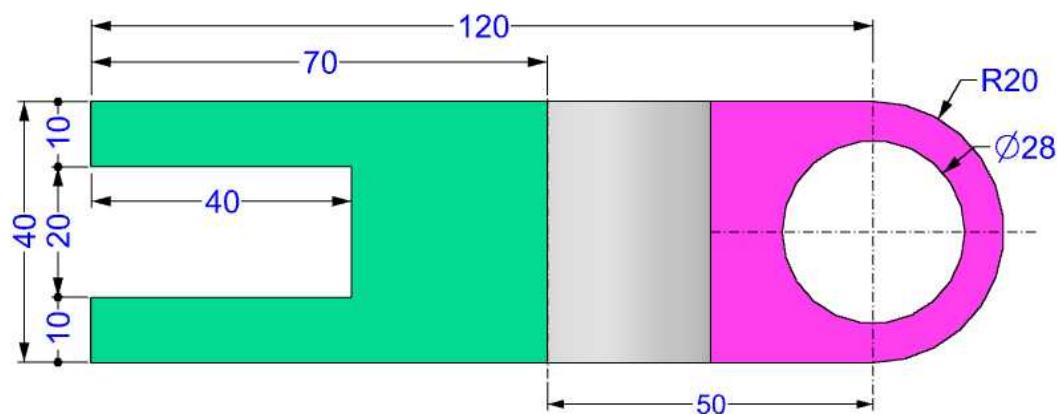
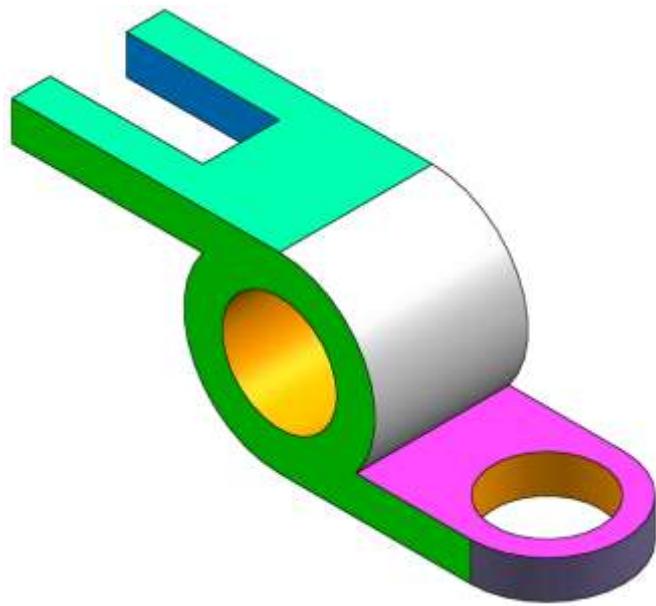
# EXERCISE-72



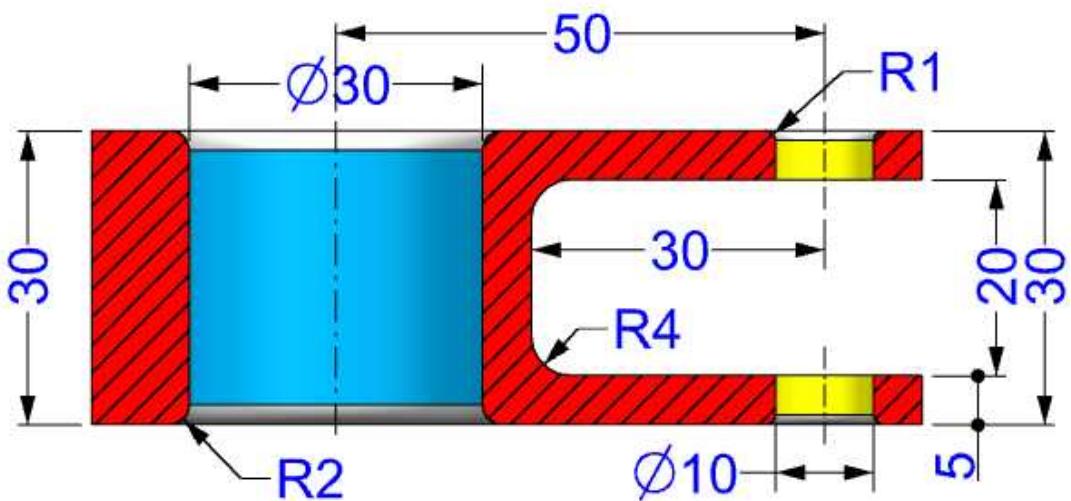
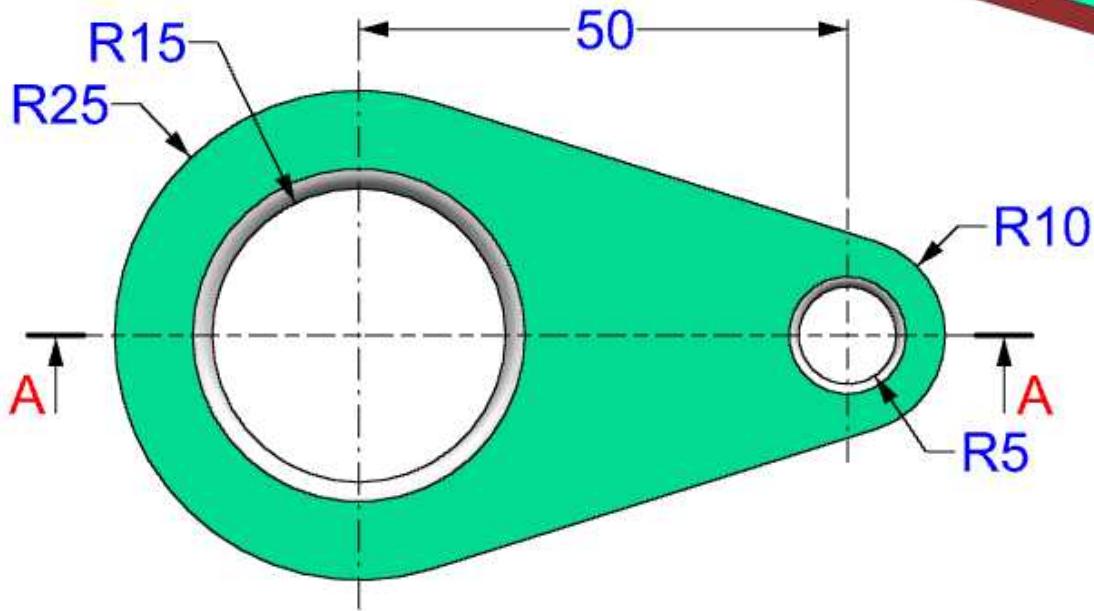
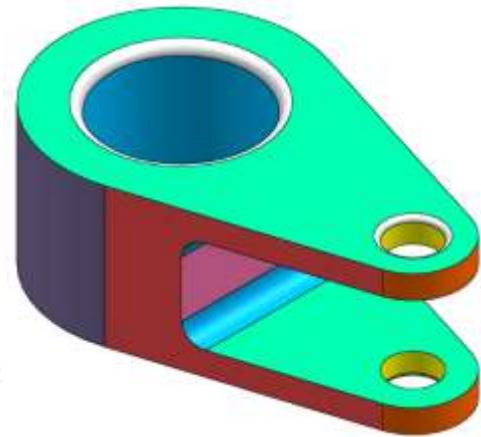
# EXERCISE-73



# **EXERCISE-74**

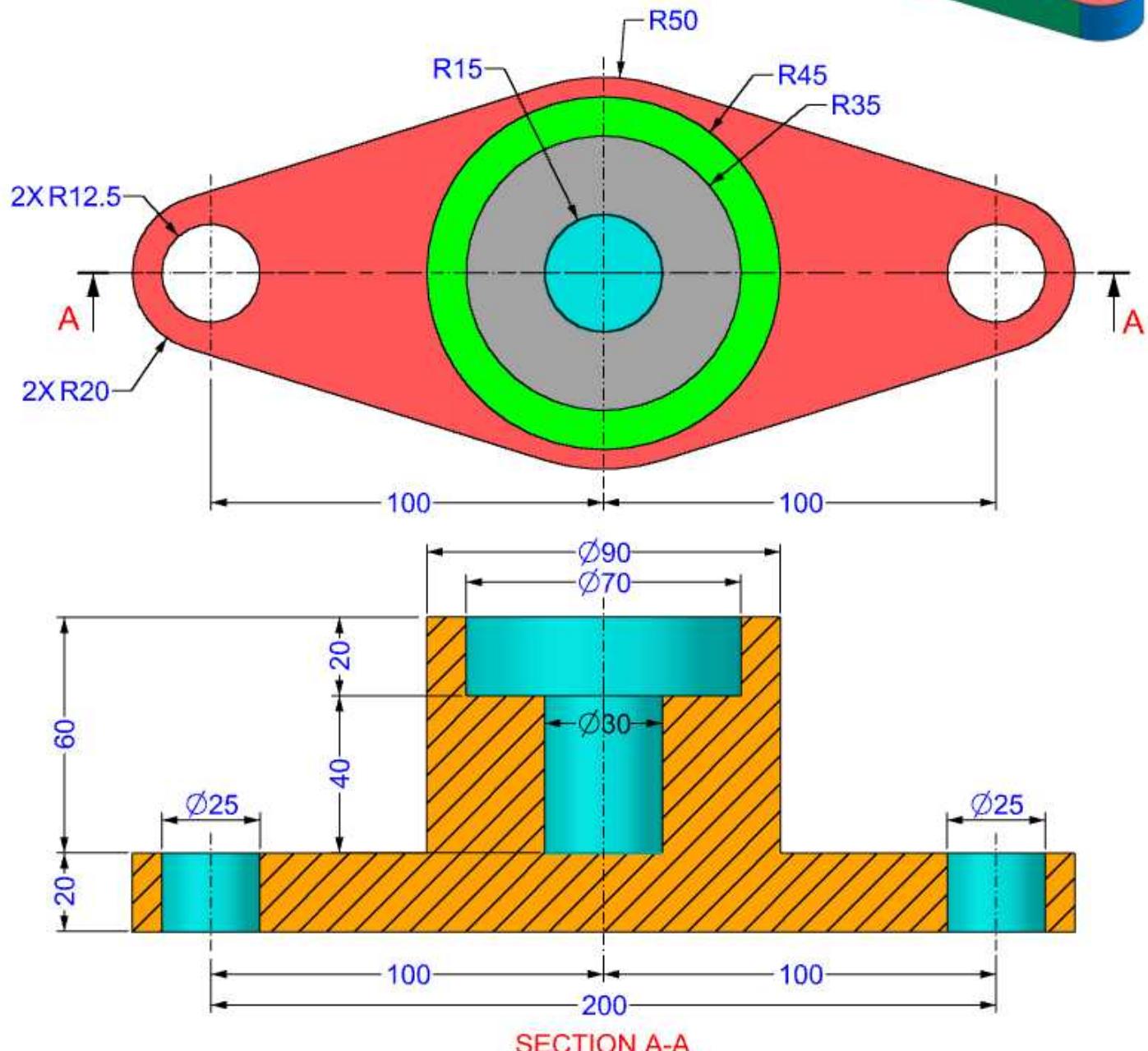
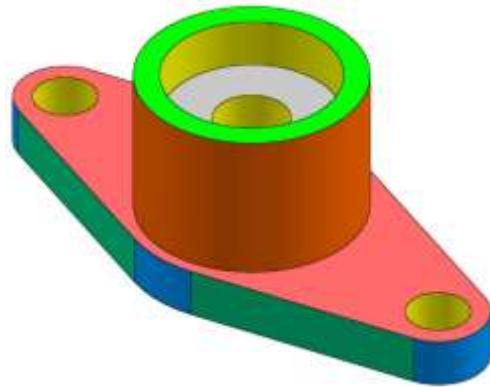


# EXERCISE-75

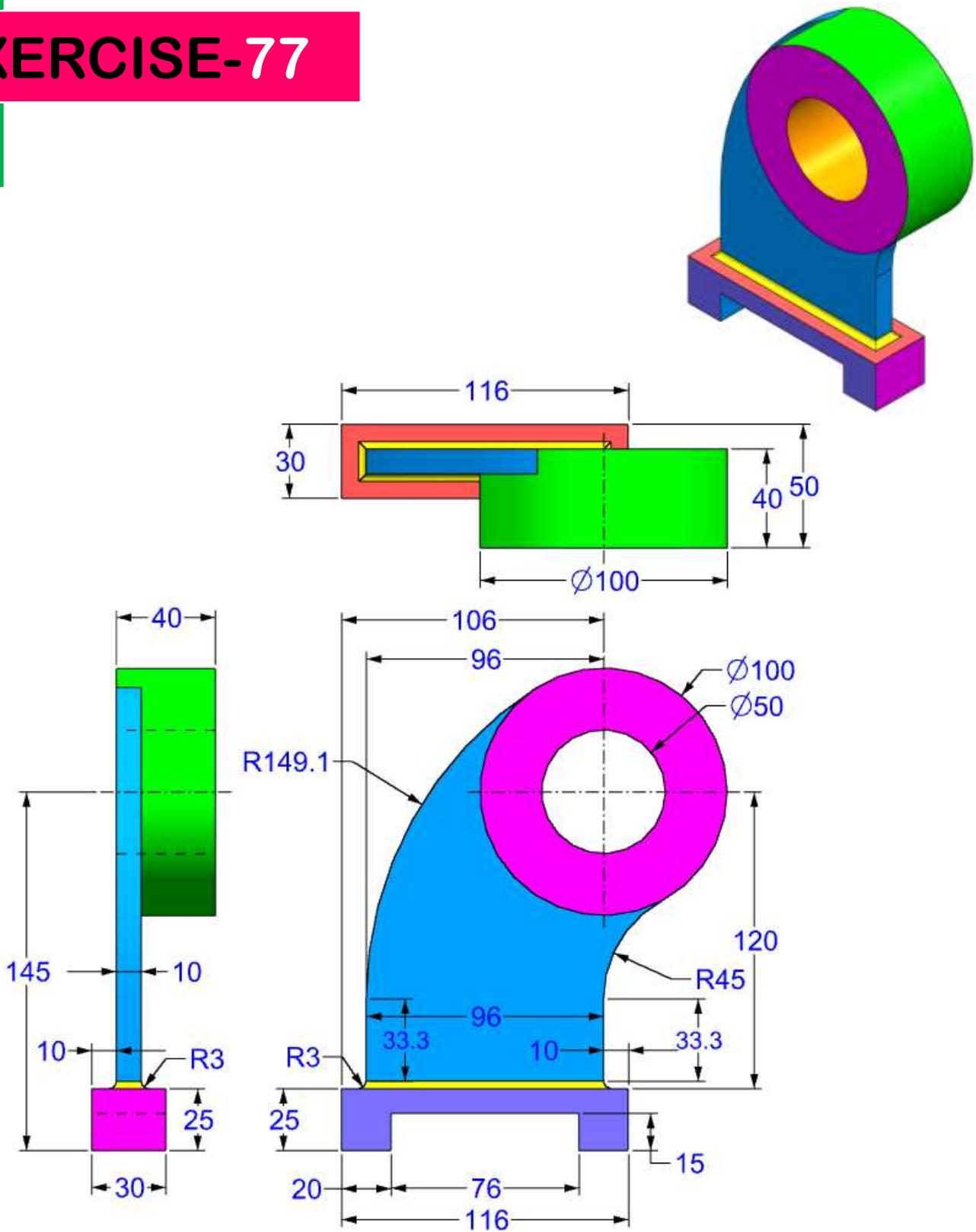


SECTION A-A

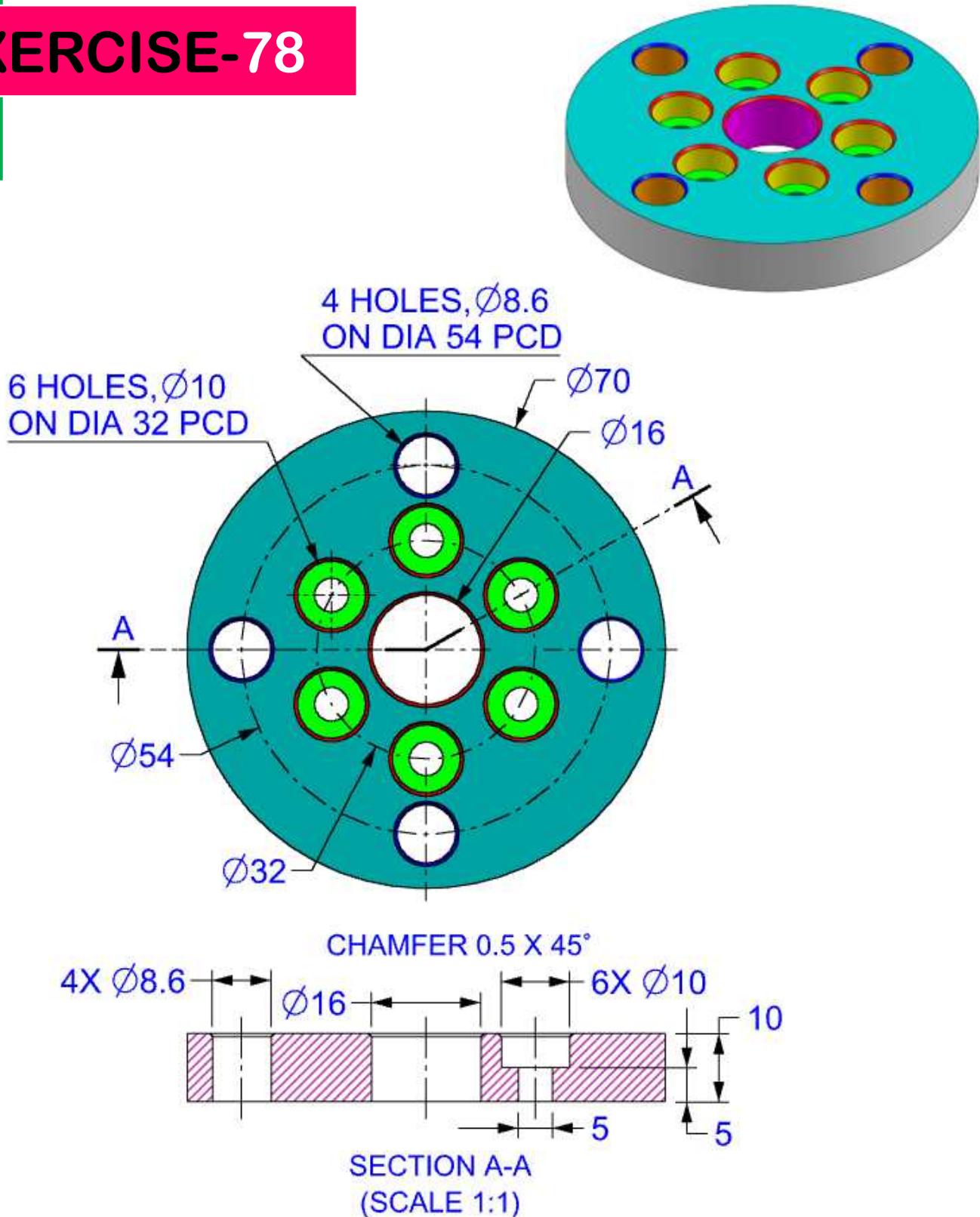
# EXERCISE-76



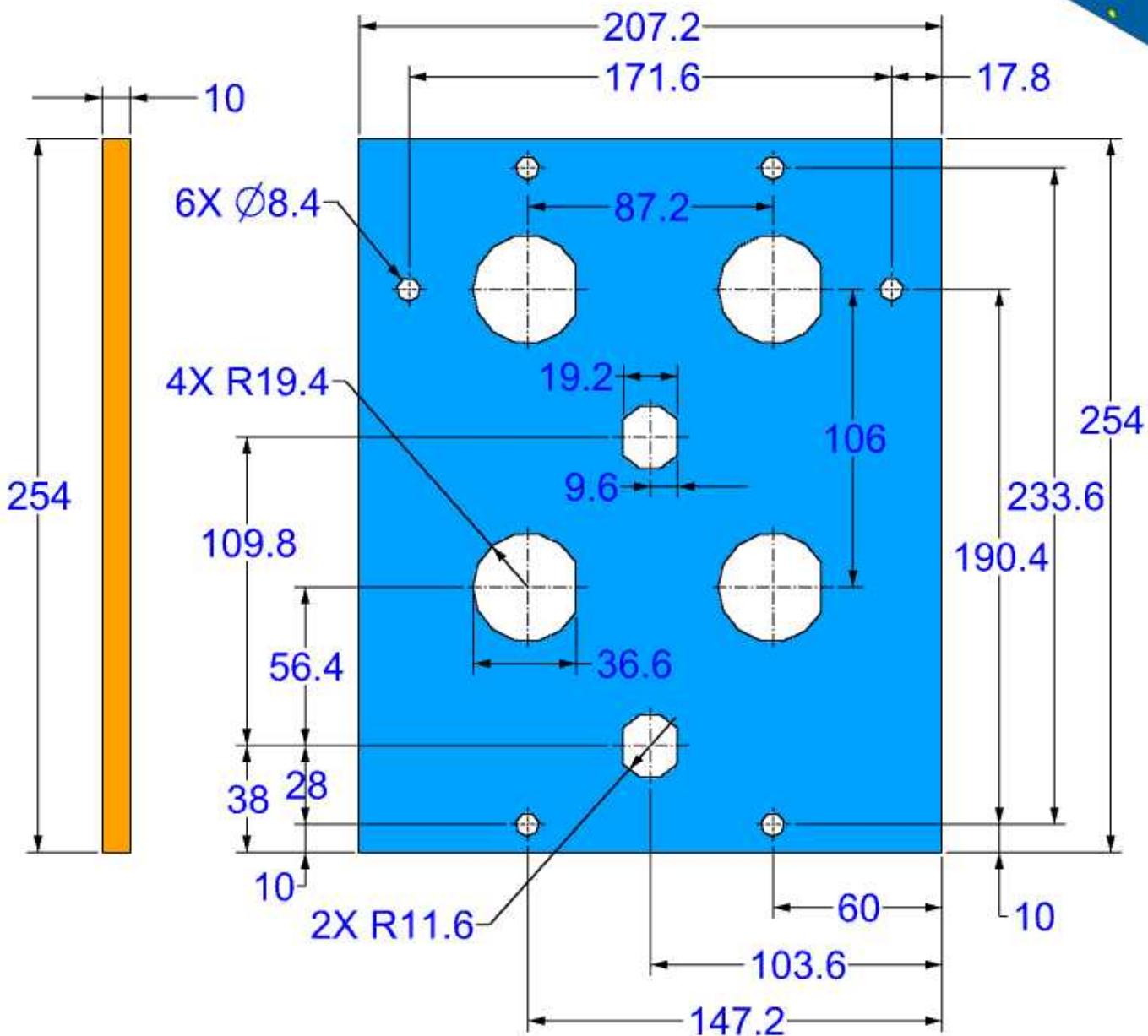
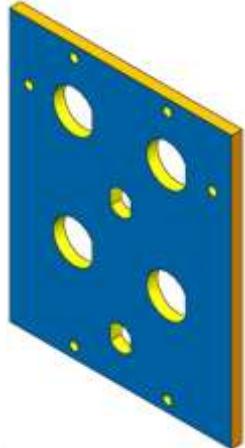
## EXERCISE-77



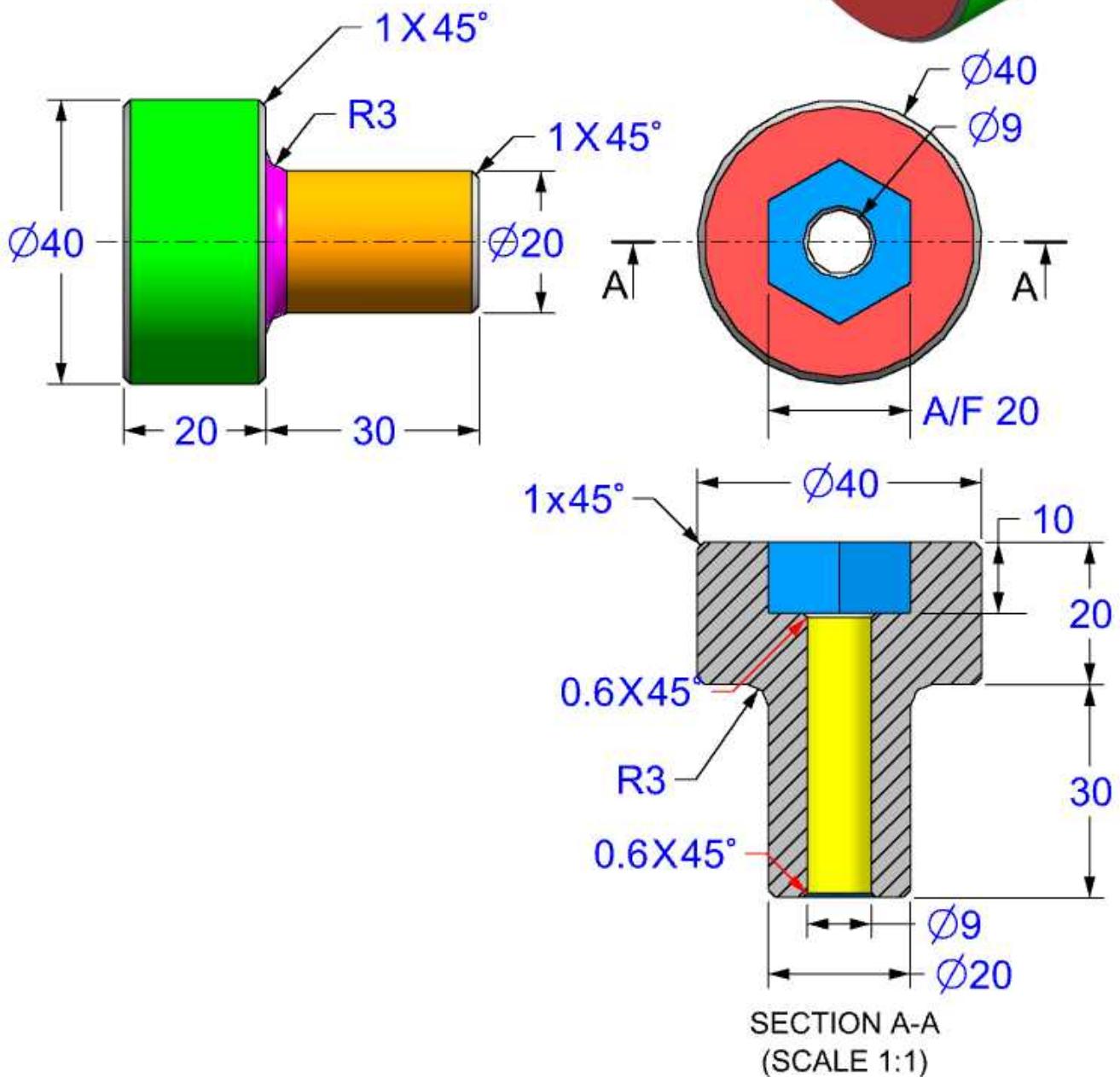
# EXERCISE-78



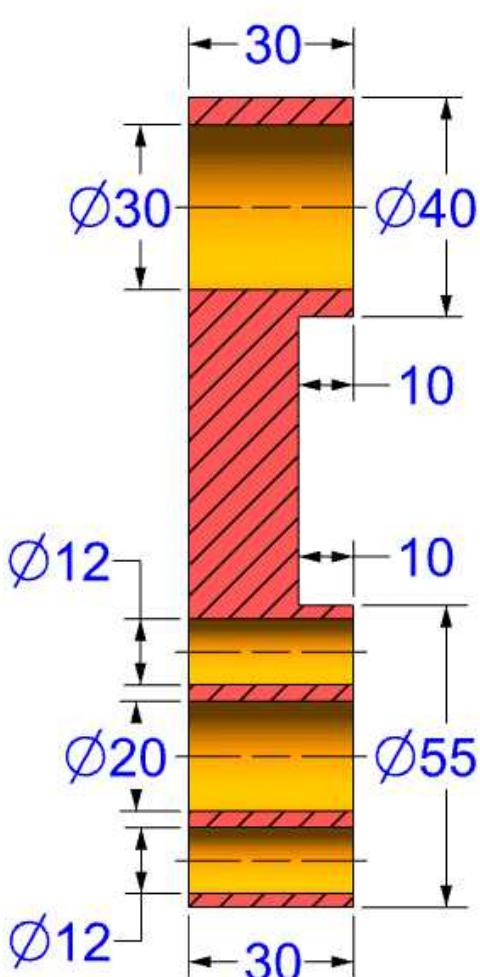
# EXERCISE-79



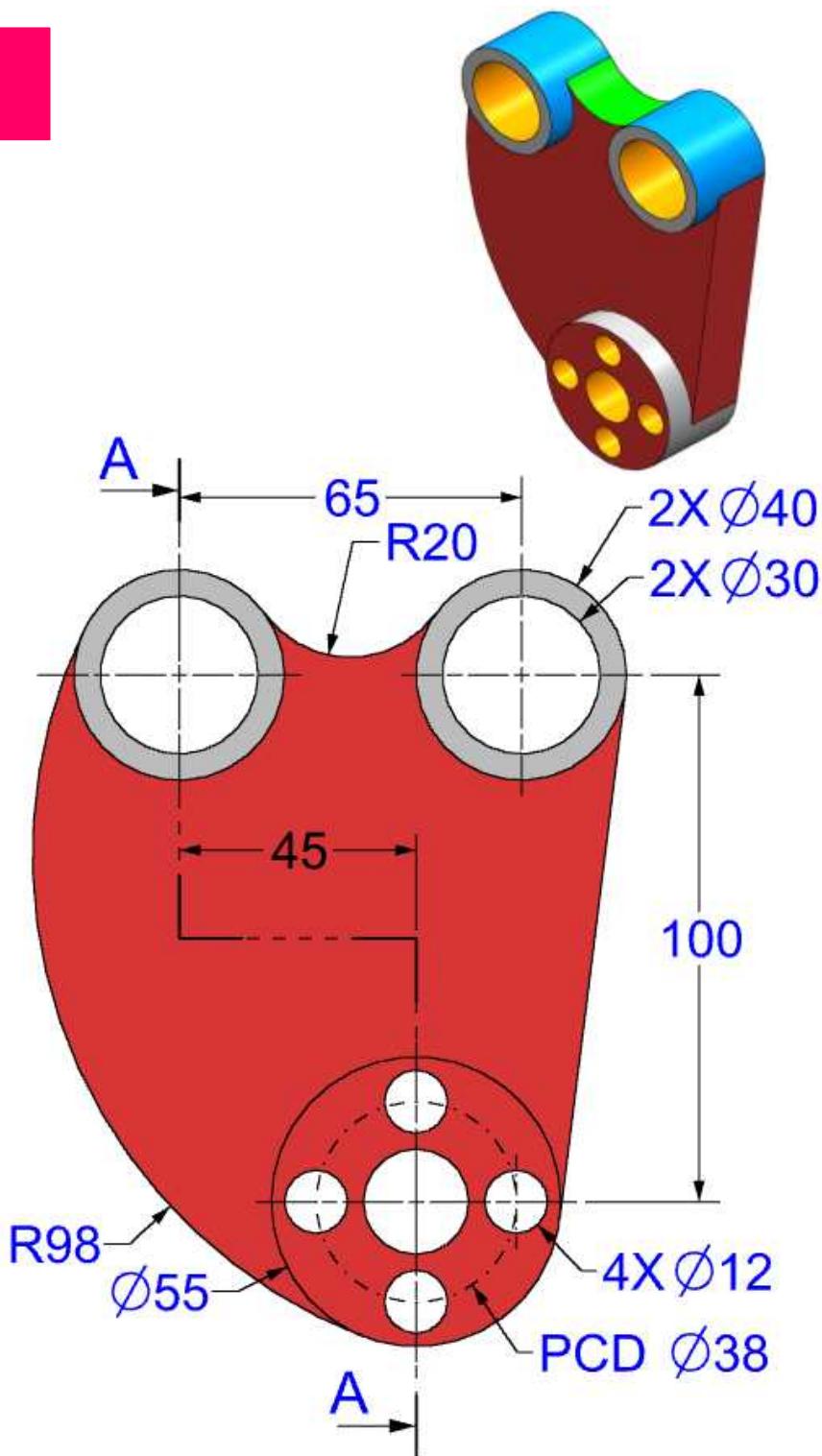
# EXERCISE-80



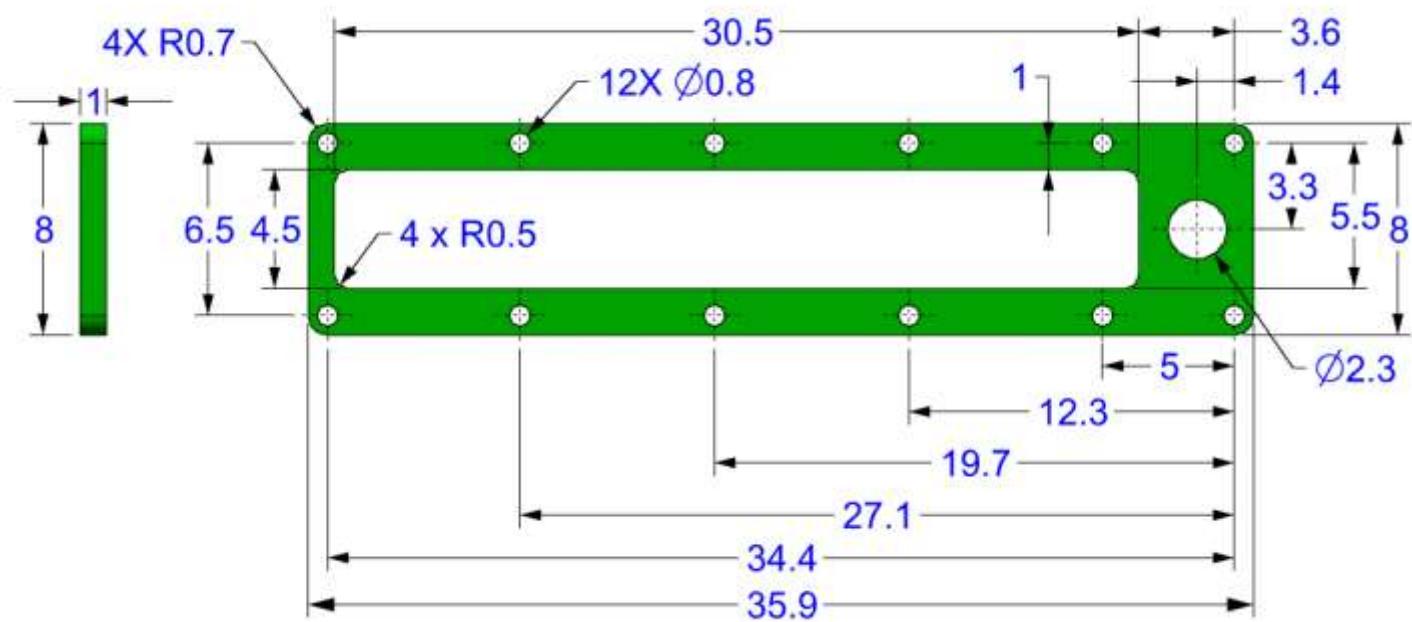
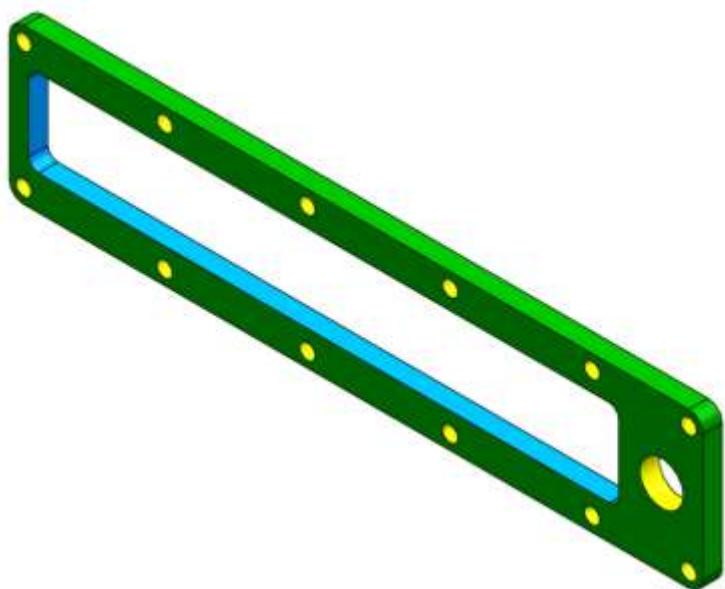
# EXERCISE-81



SECTION A-A  
(SCALE 1:1)



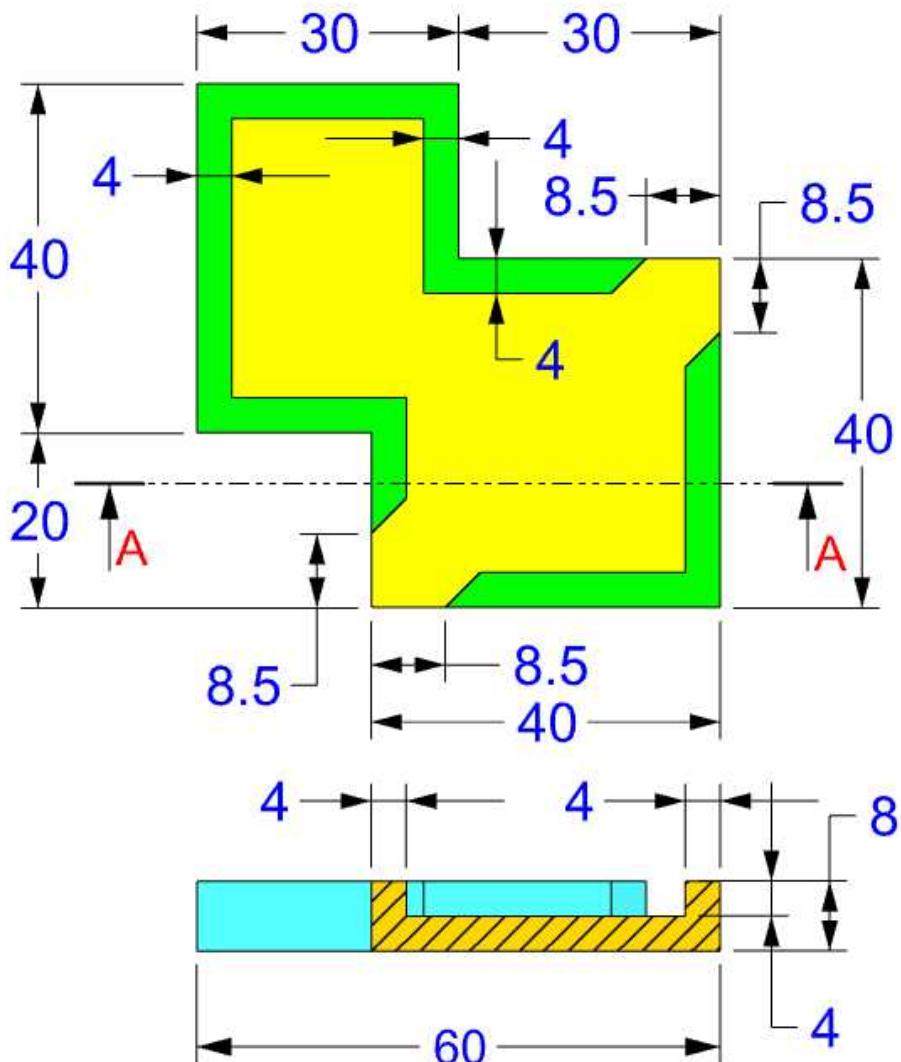
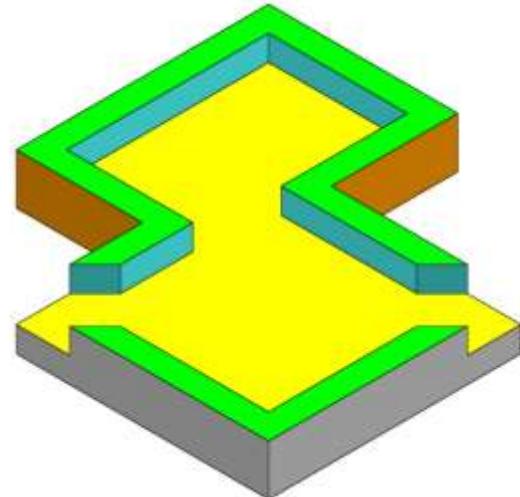
# EXERCISE-82



# EXERCISE-83

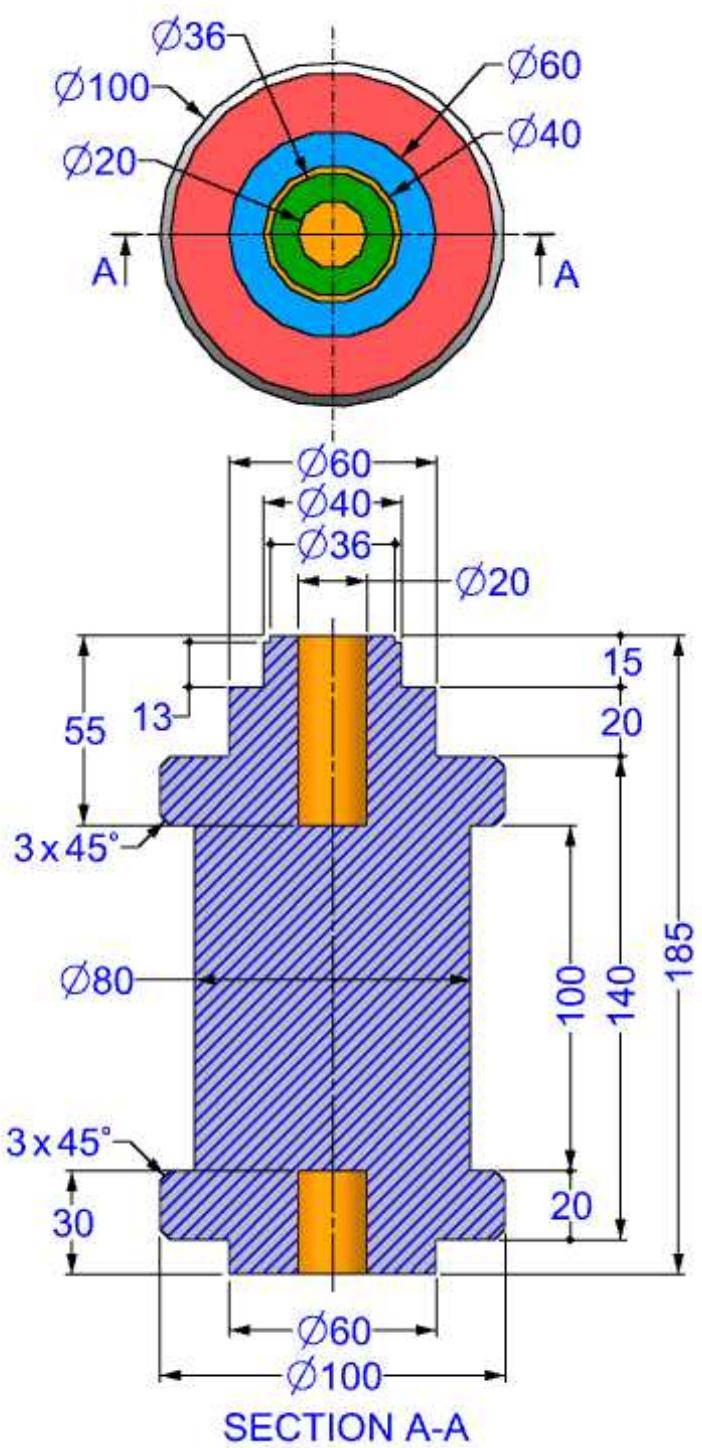


# EXERCISE-84

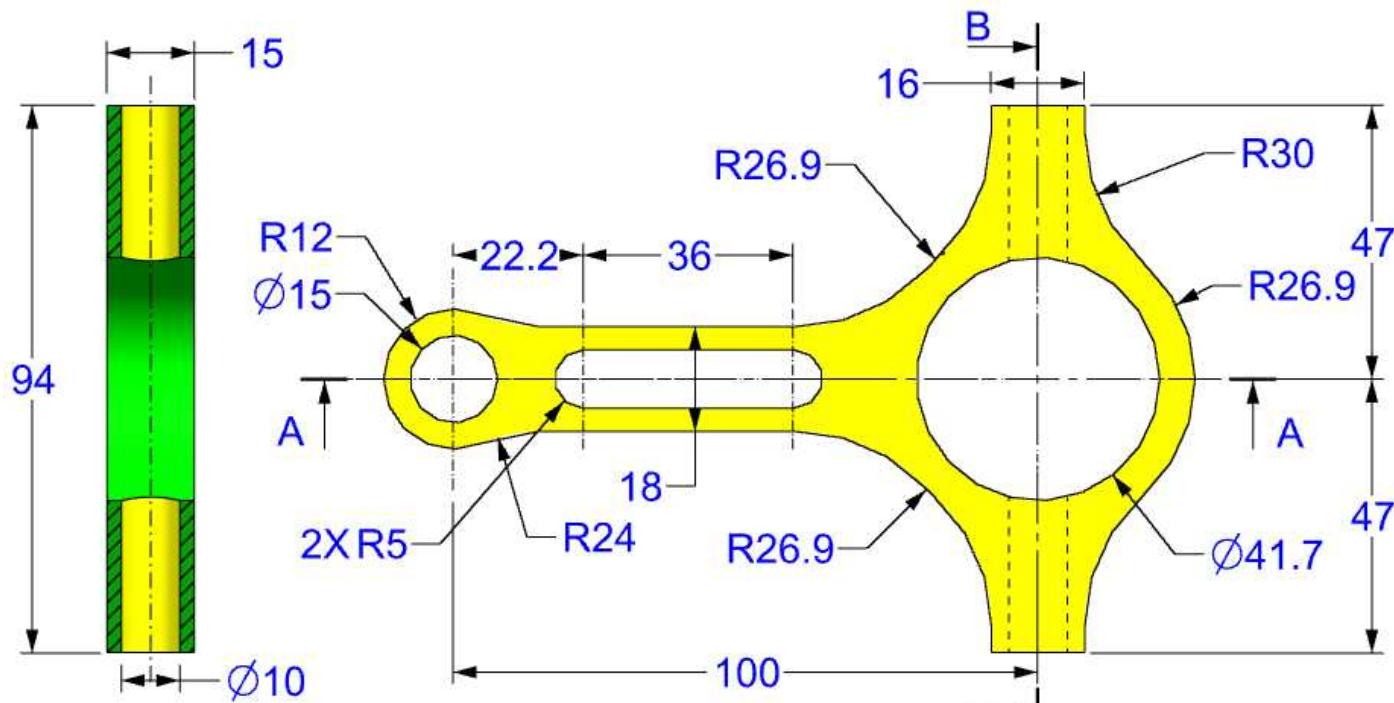
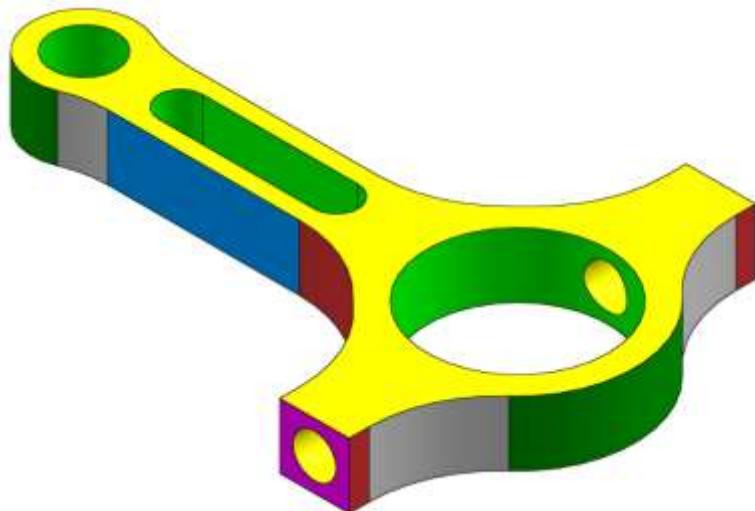


SECTION A-A  
(SCALE 1:1)

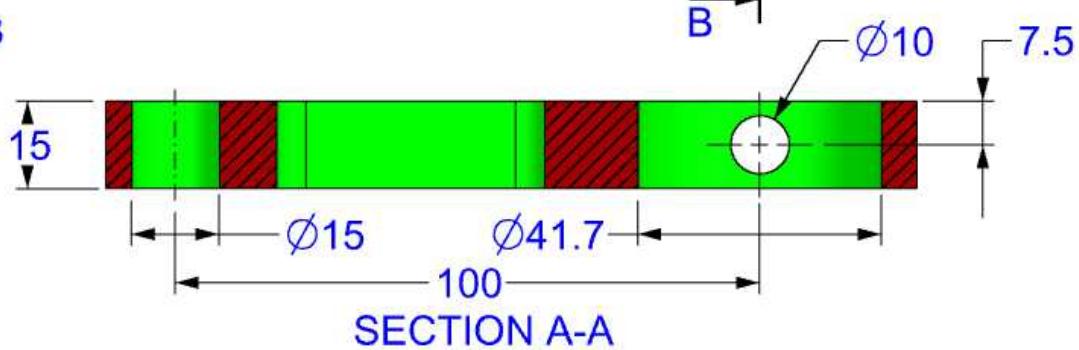
# EXERCISE-85



## EXERCISE-86

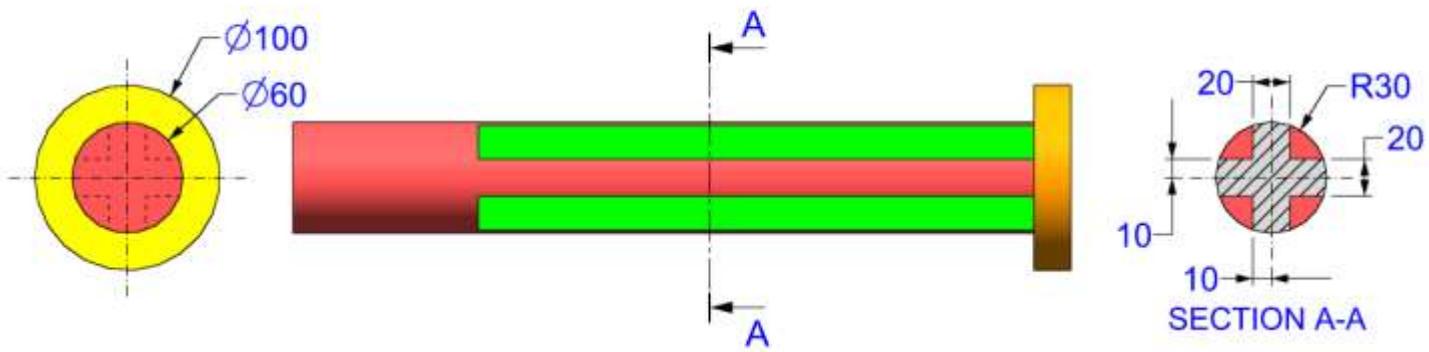
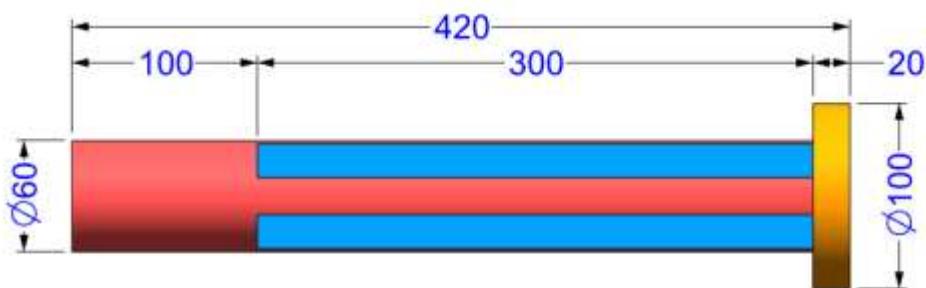
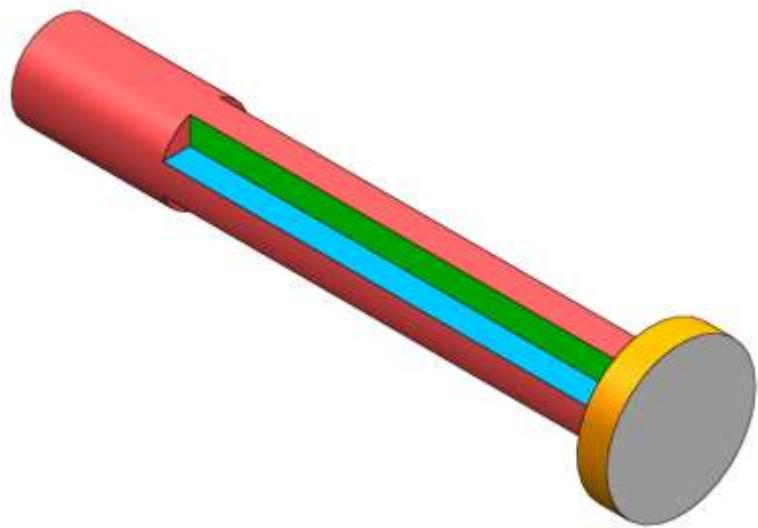


SECTION B-B

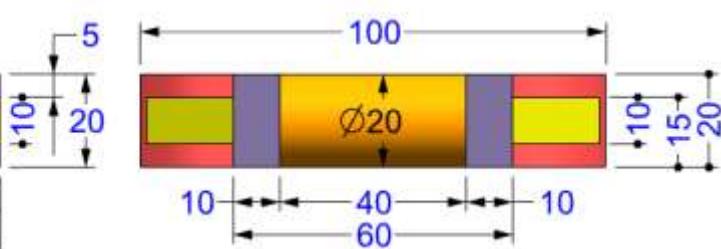
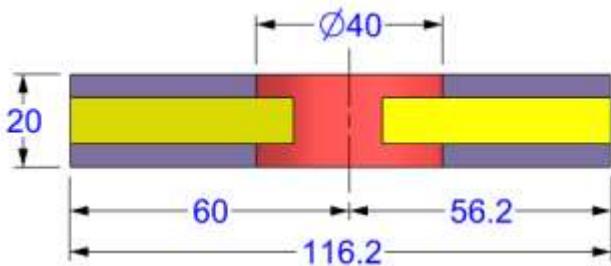
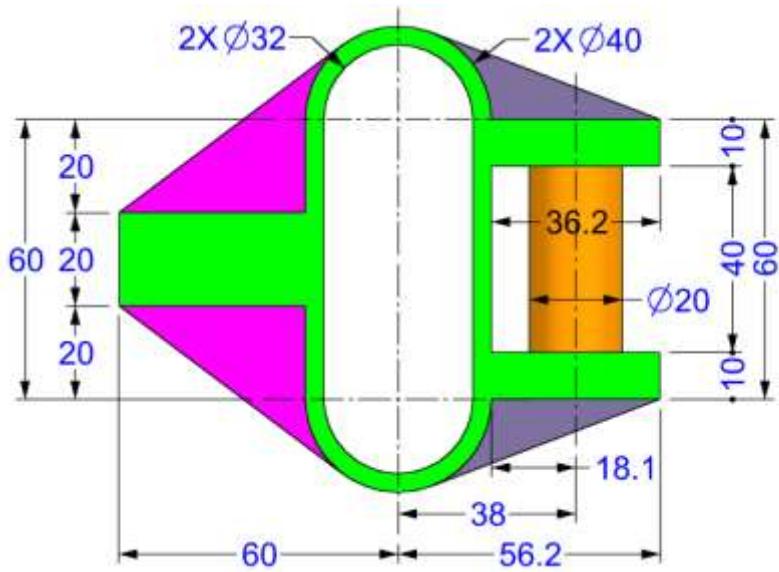
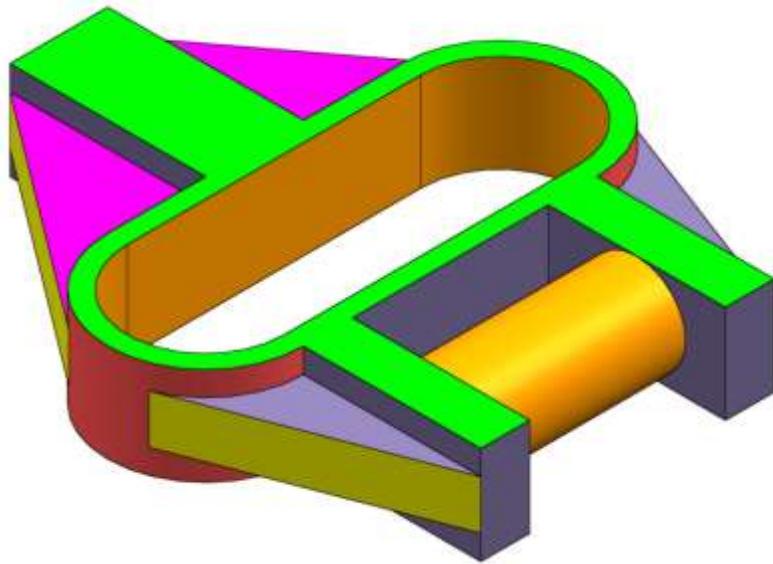


SECTION A-A

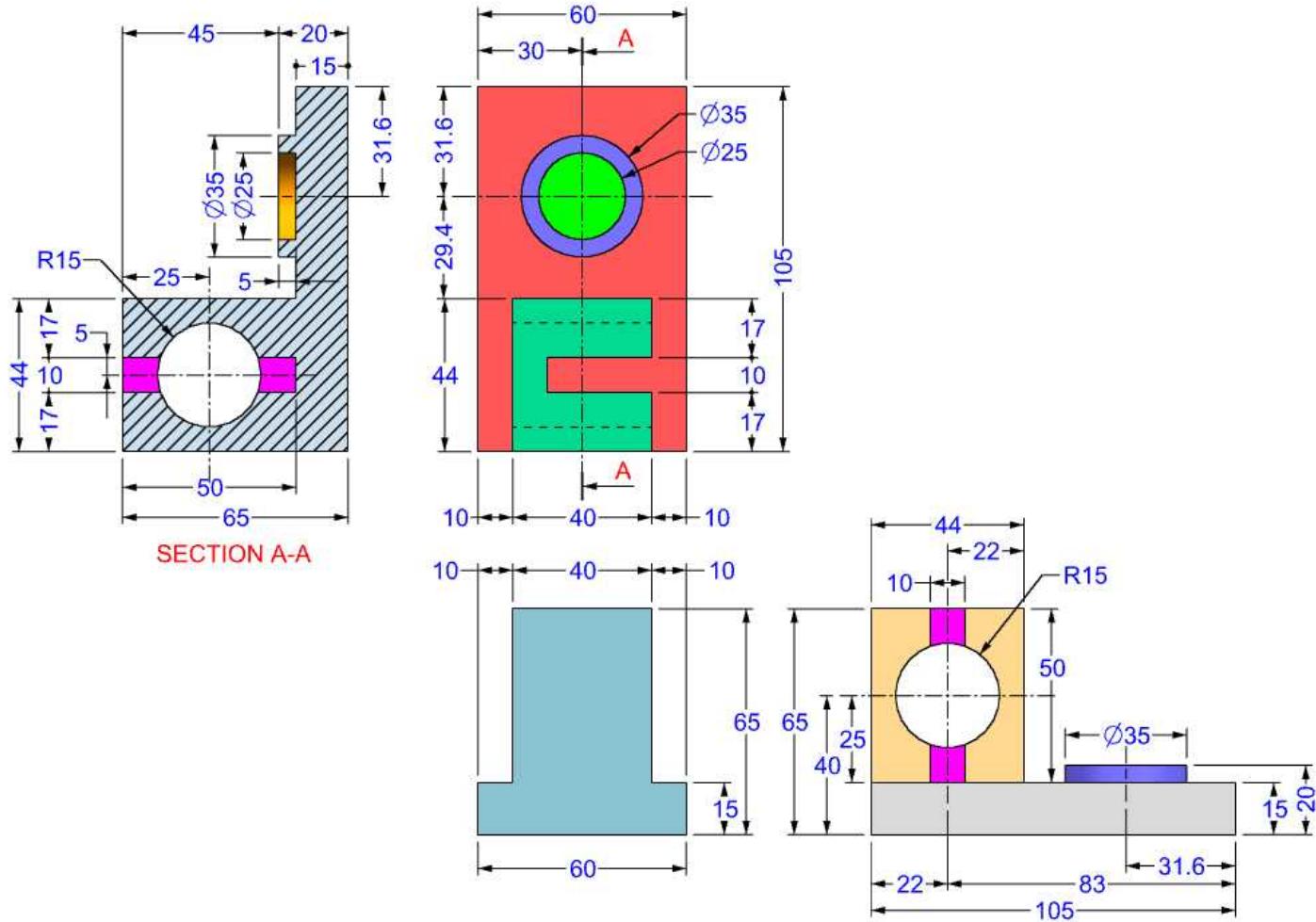
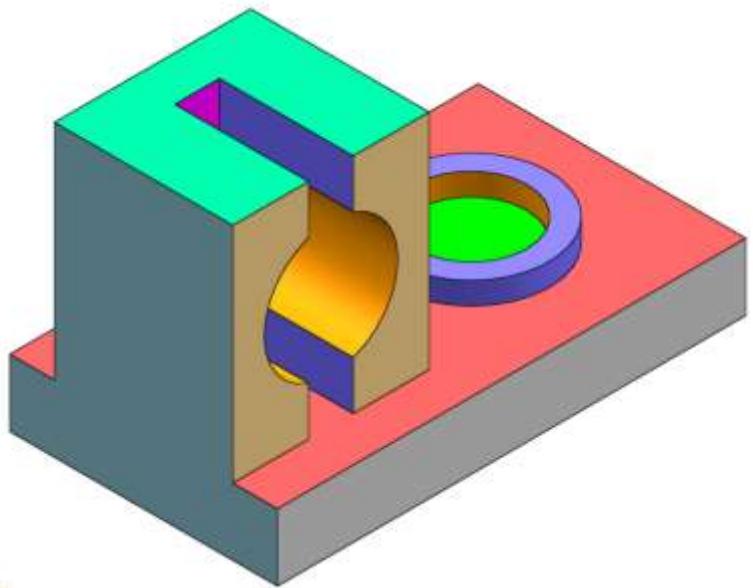
# EXERCISE-87



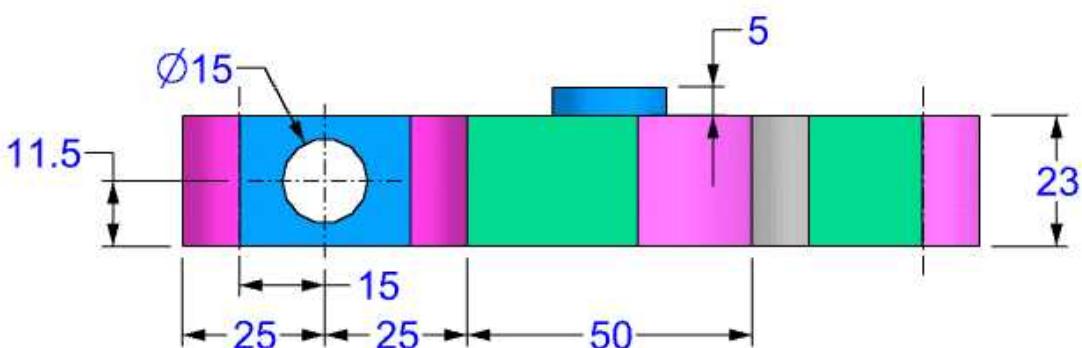
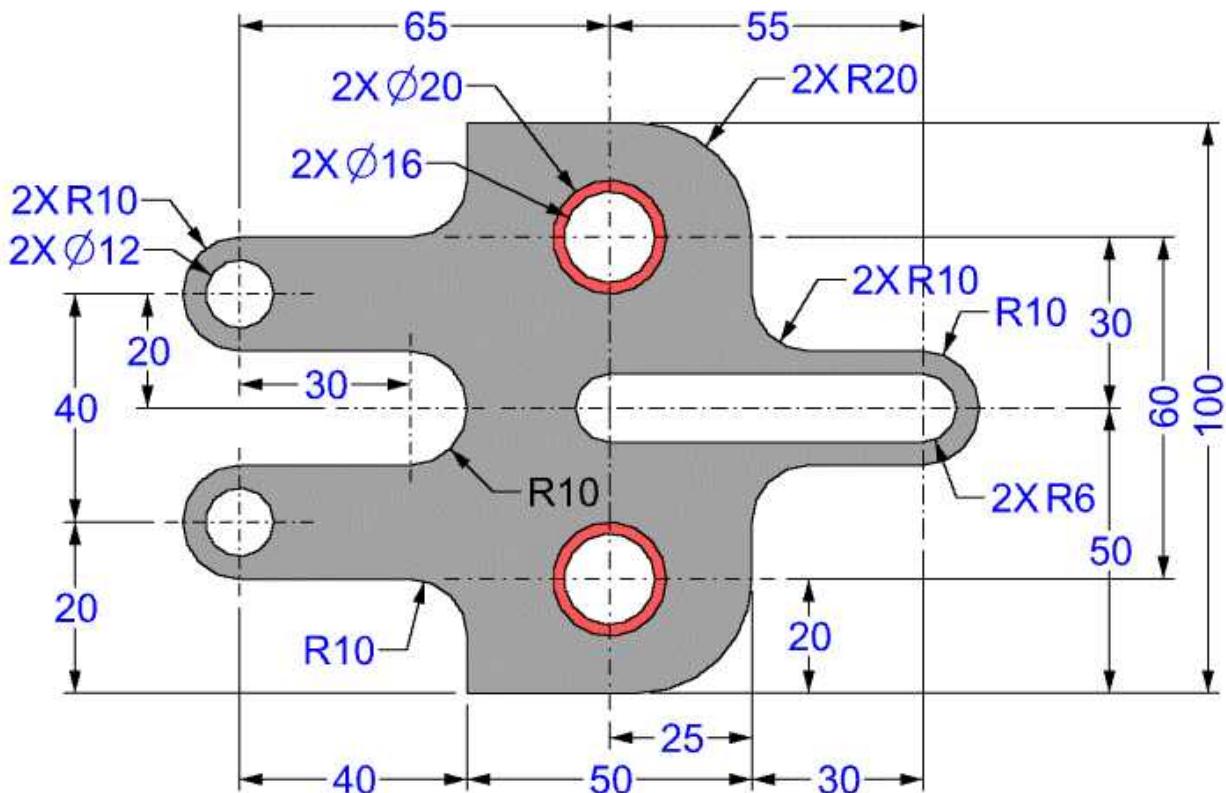
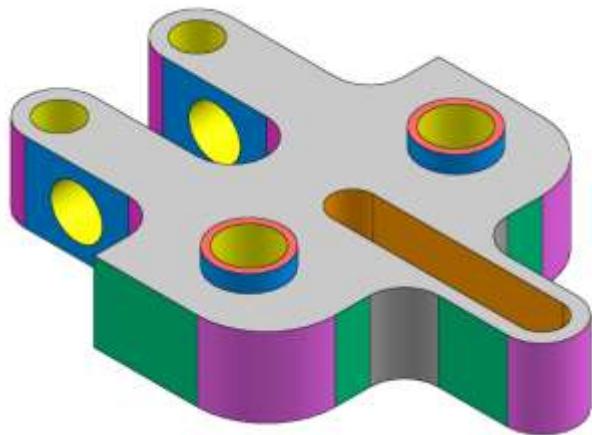
# **EXERCISE-88**



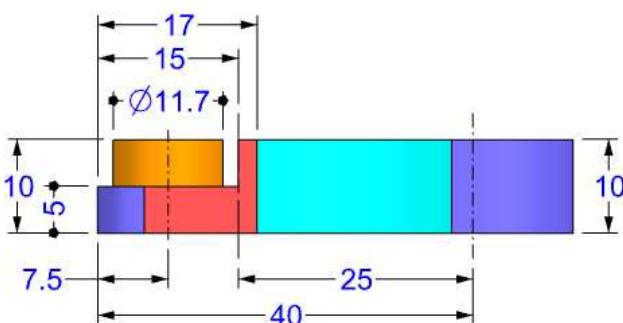
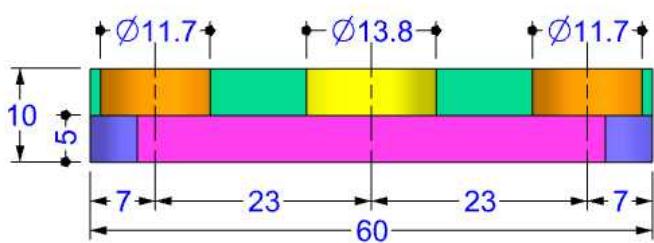
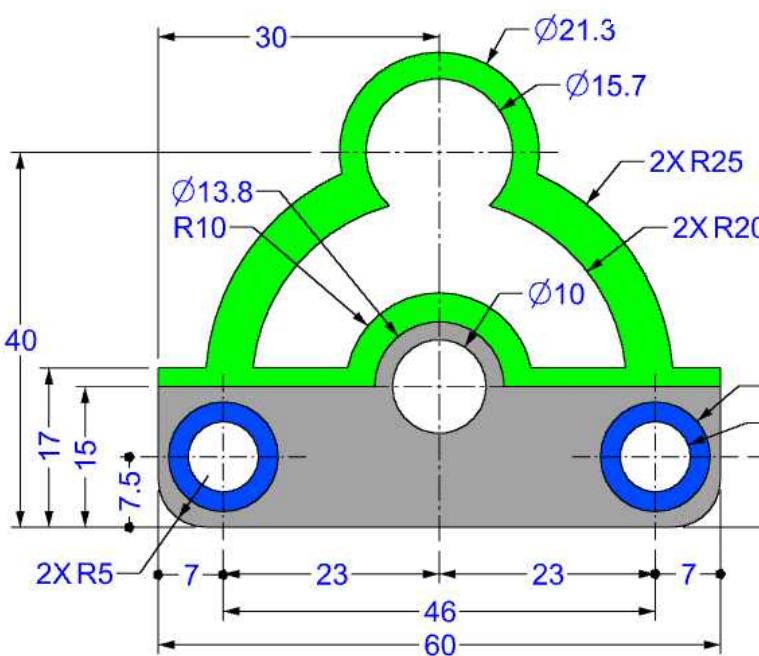
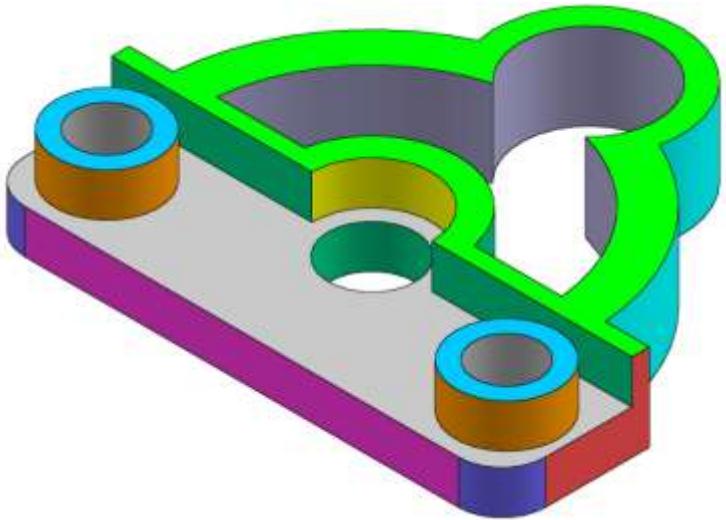
# EXERCISE-89



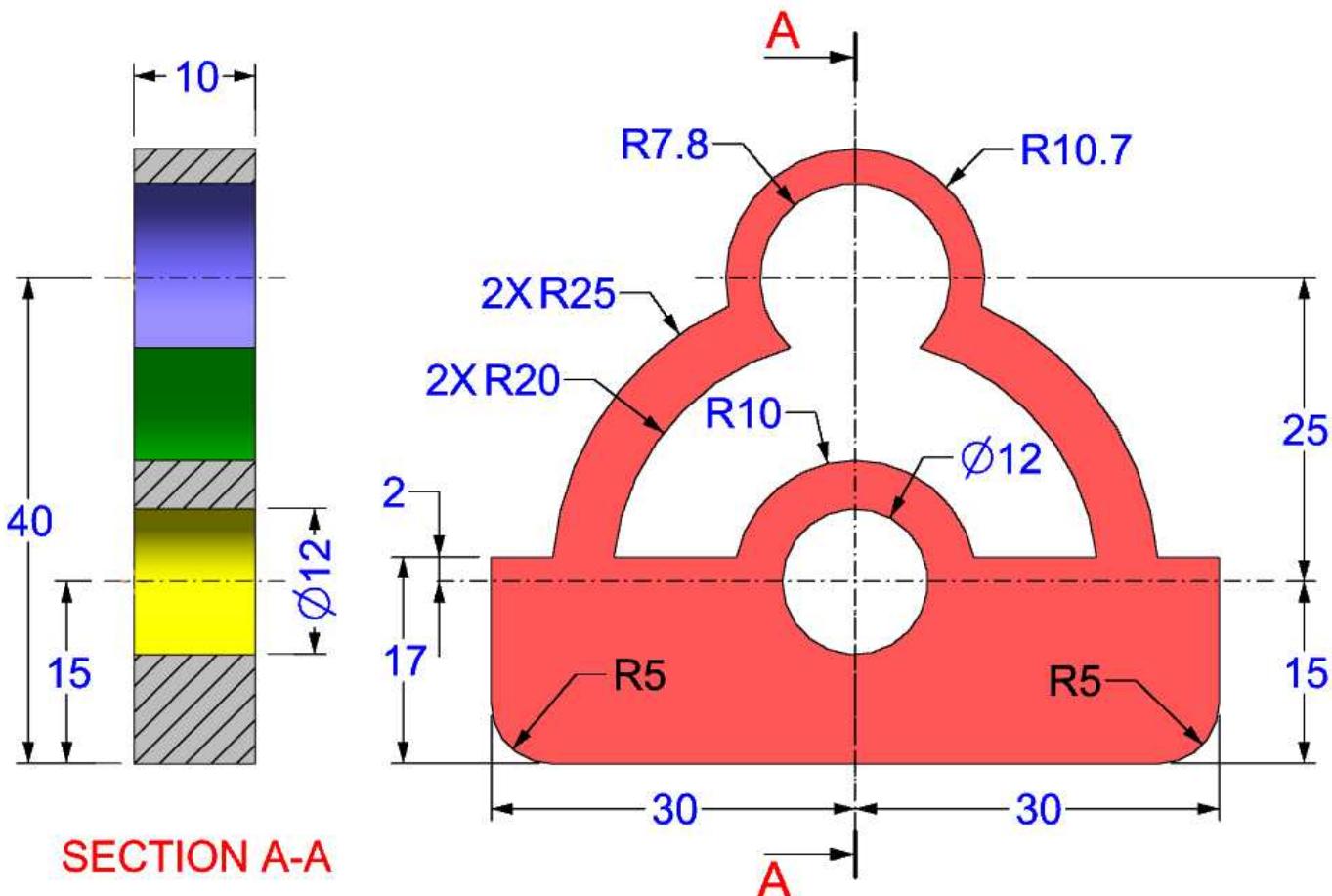
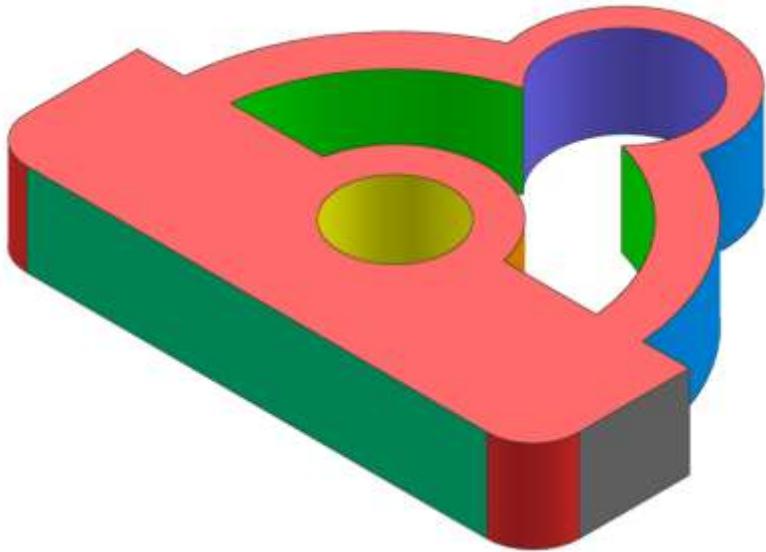
# EXERCISE-90



# EXERCISE-91

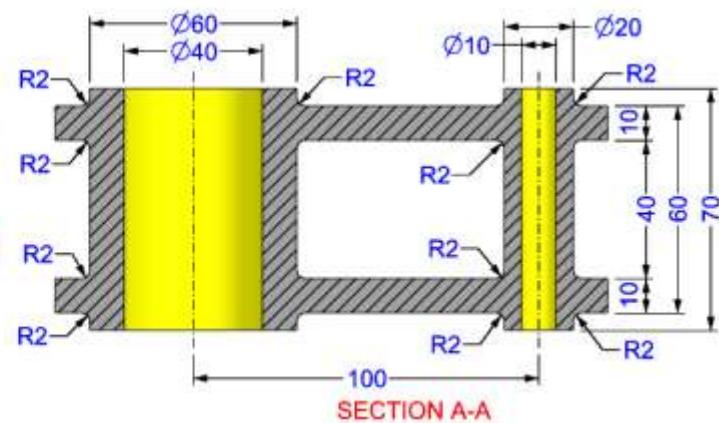
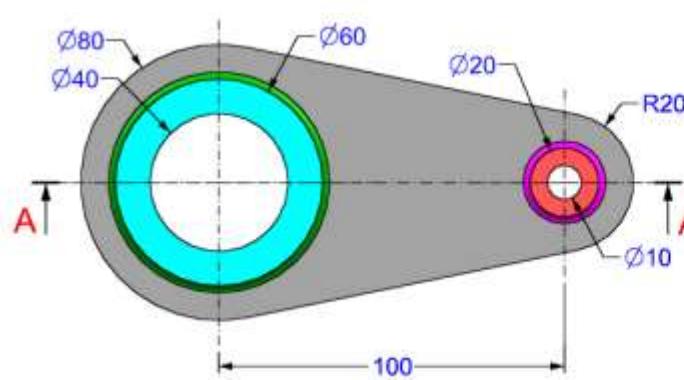
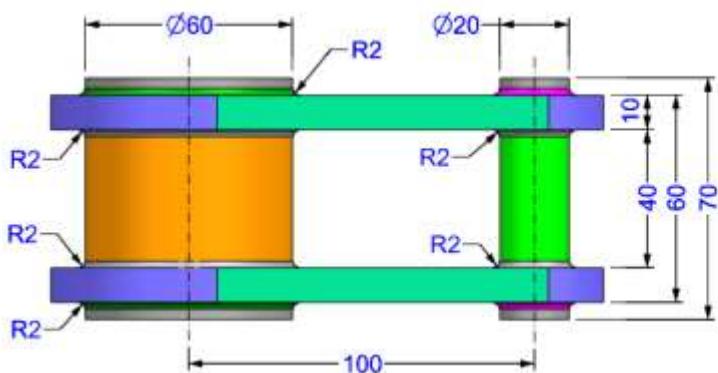
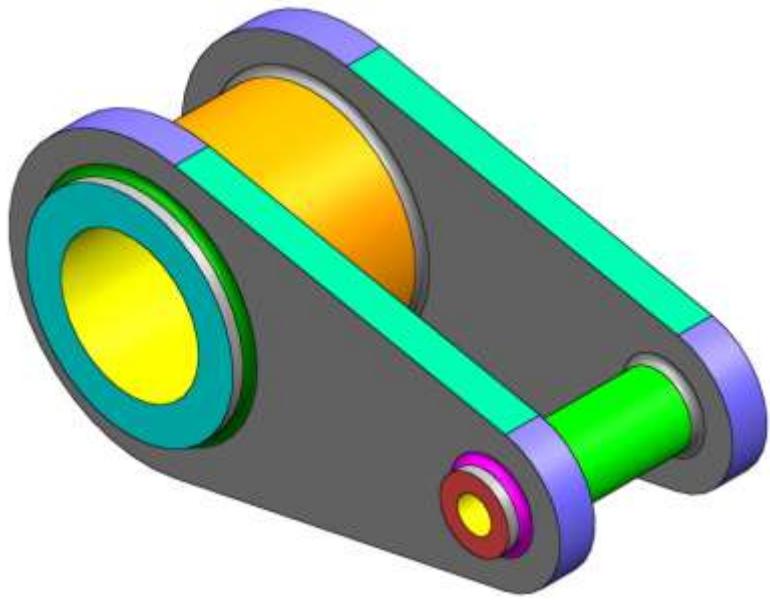


# EXERCISE-92

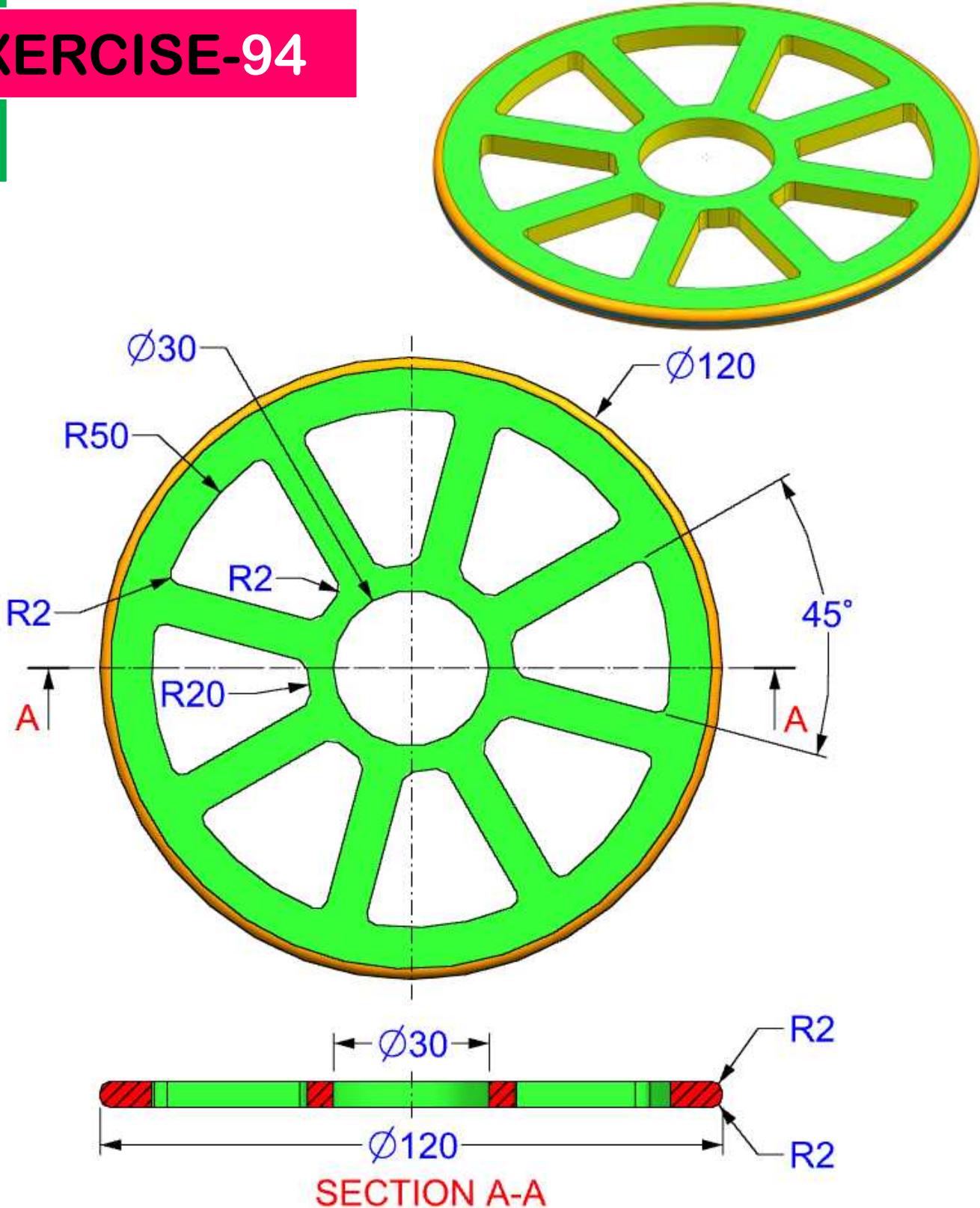


SECTION A-A

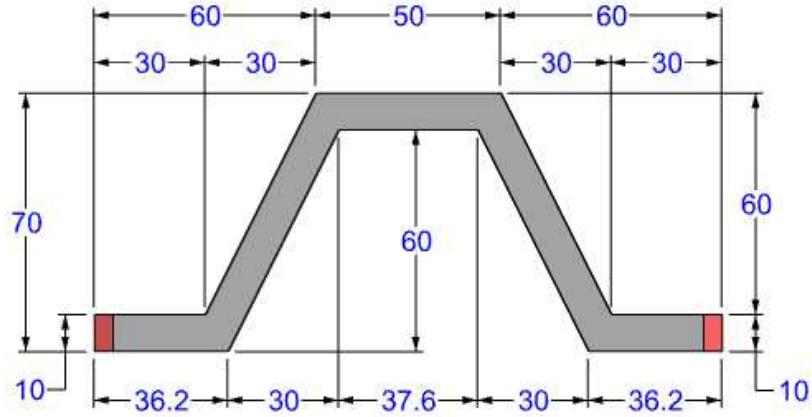
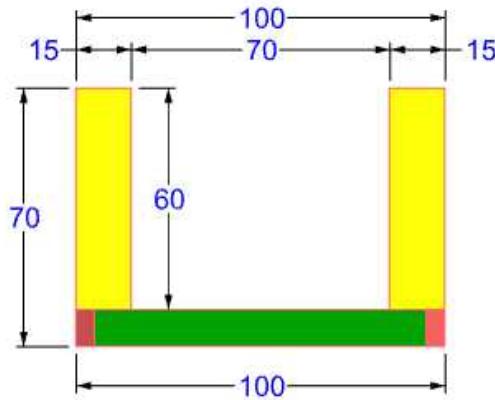
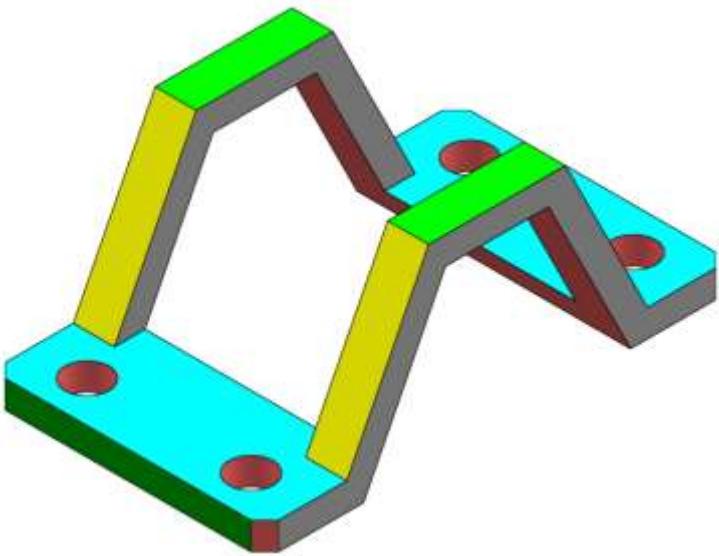
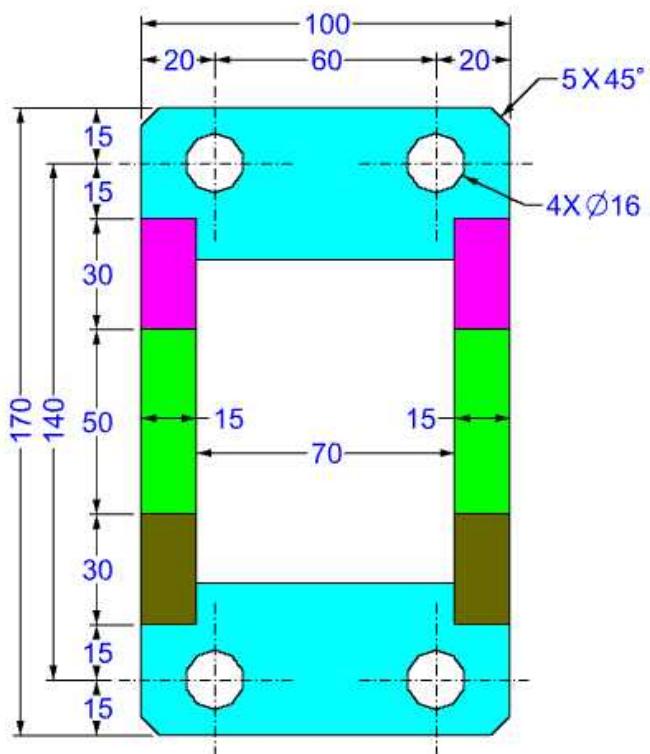
# EXERCISE-93



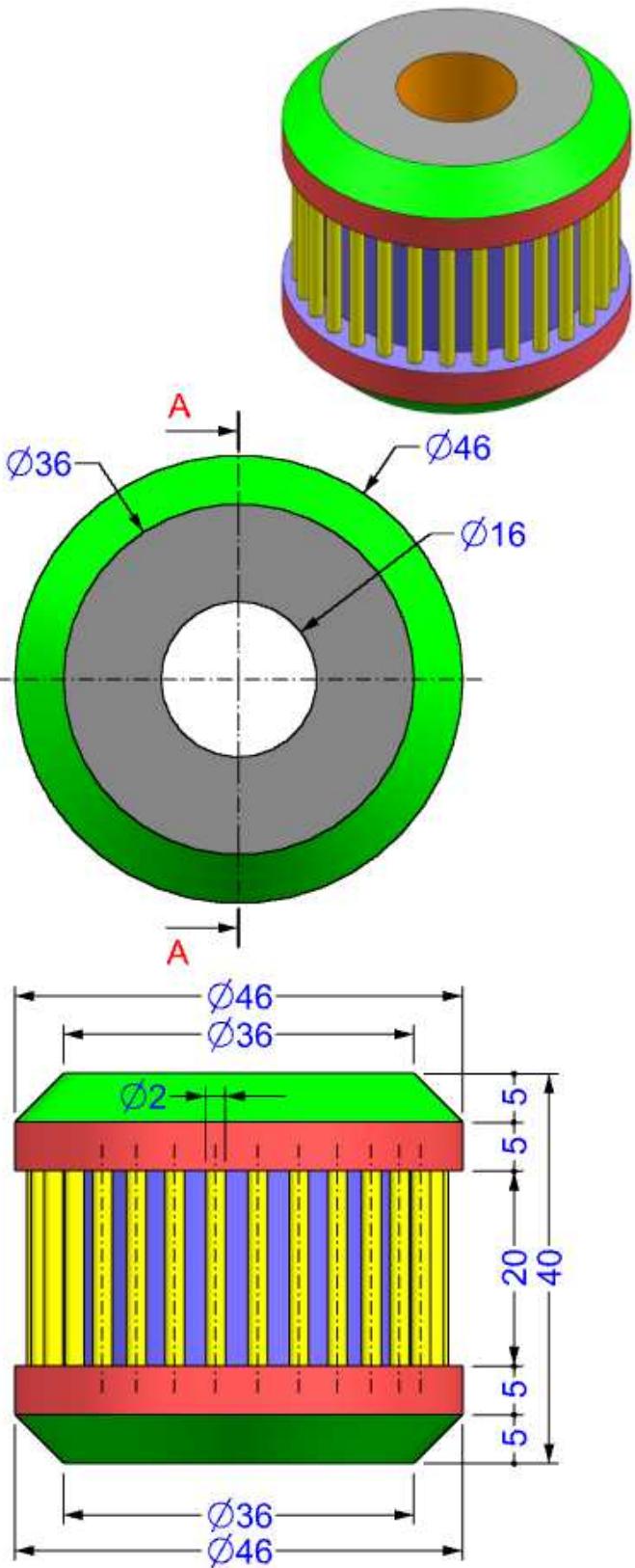
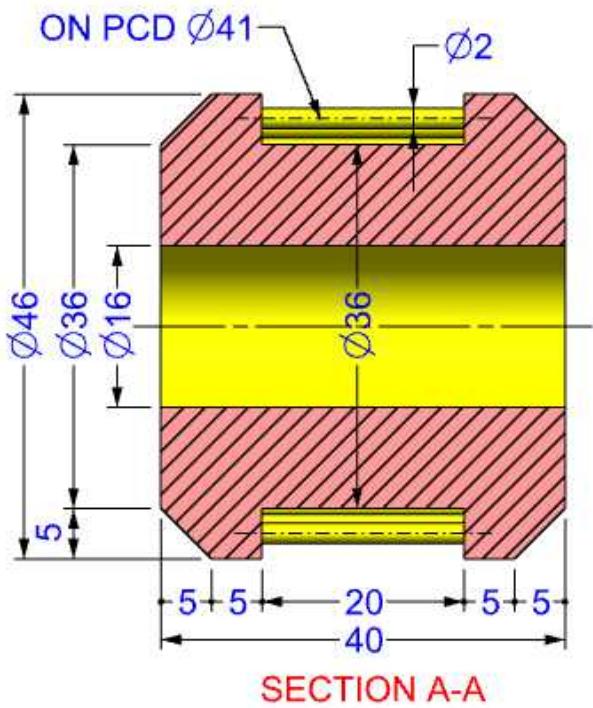
## EXERCISE-94



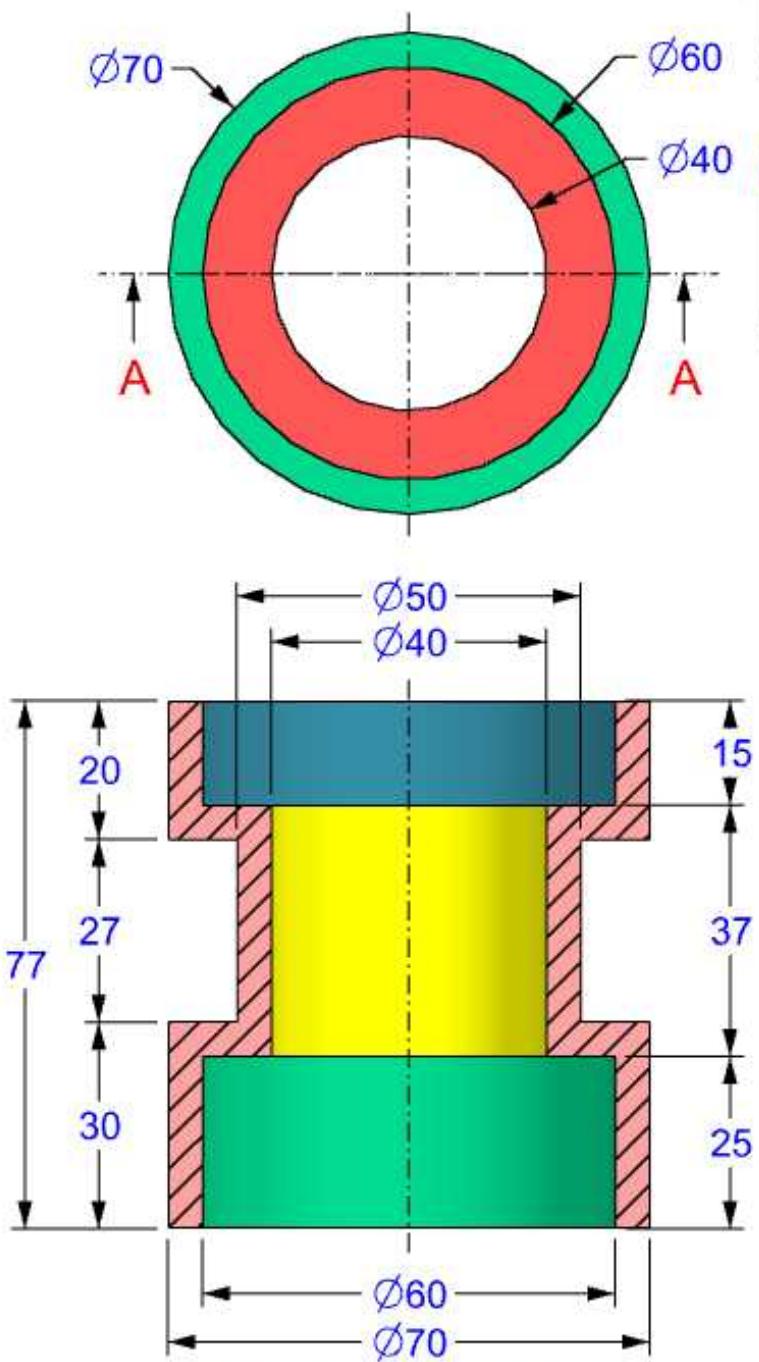
# **EXERCISE-95**



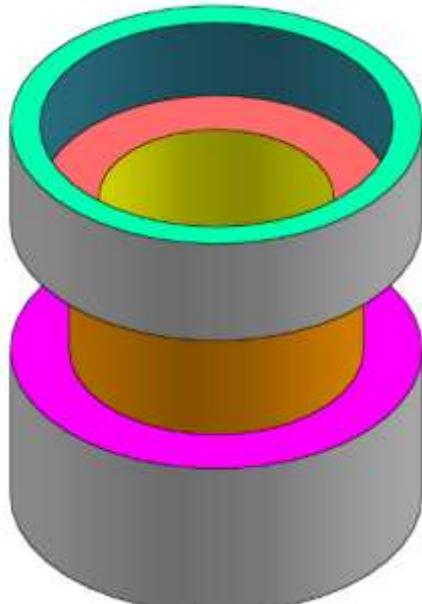
# EXERCISE-96



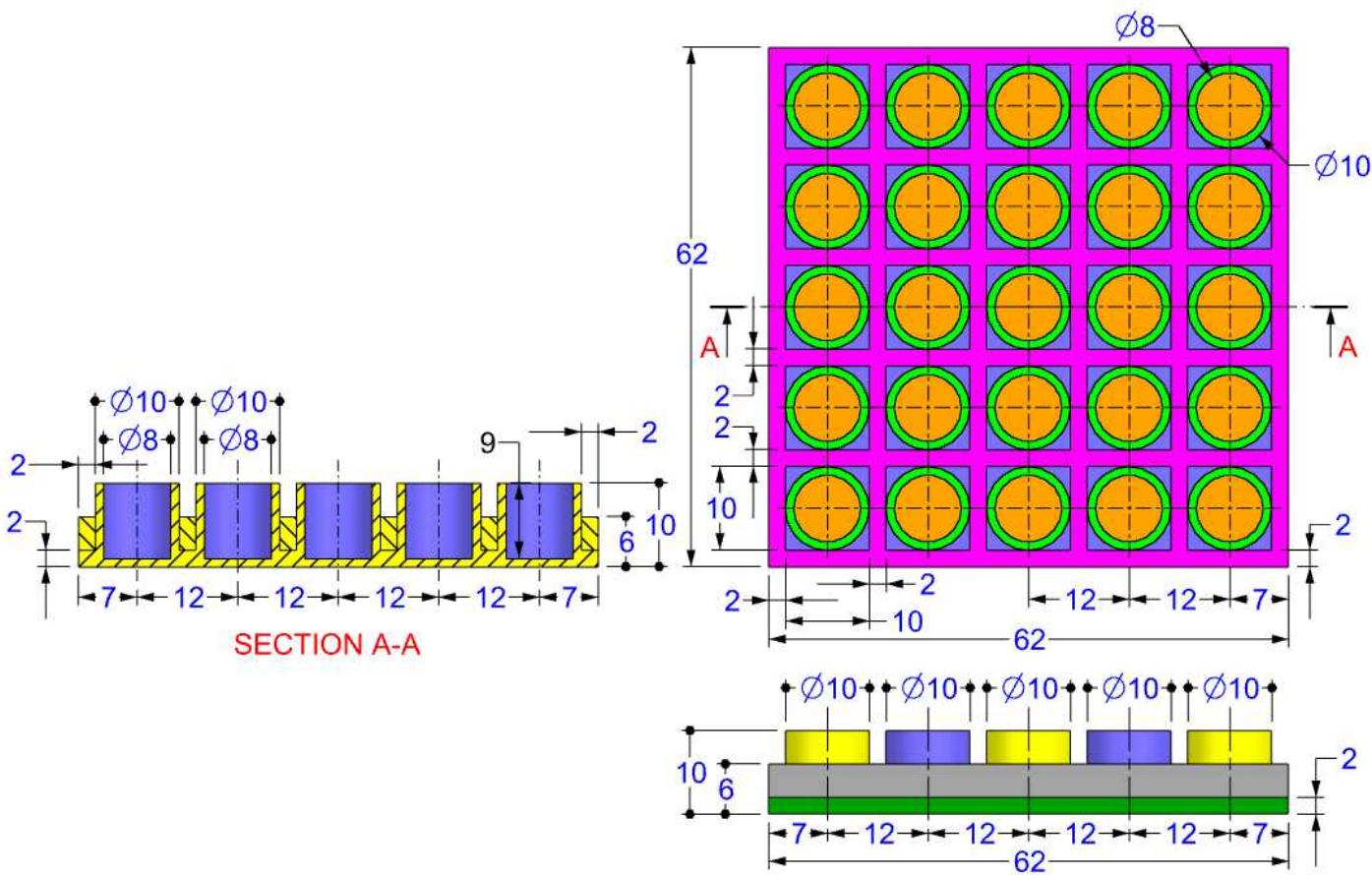
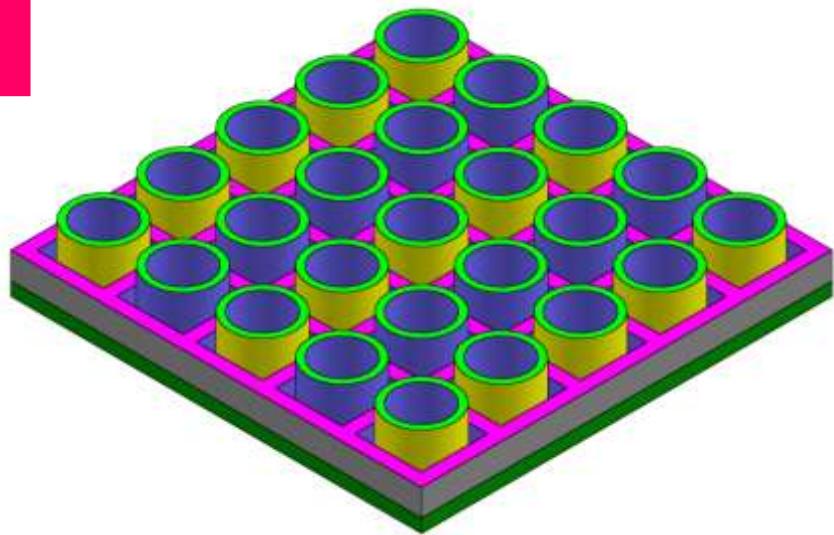
# EXERCISE-97



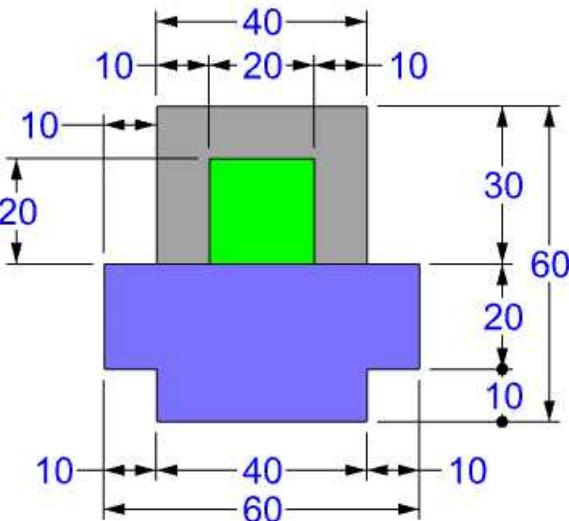
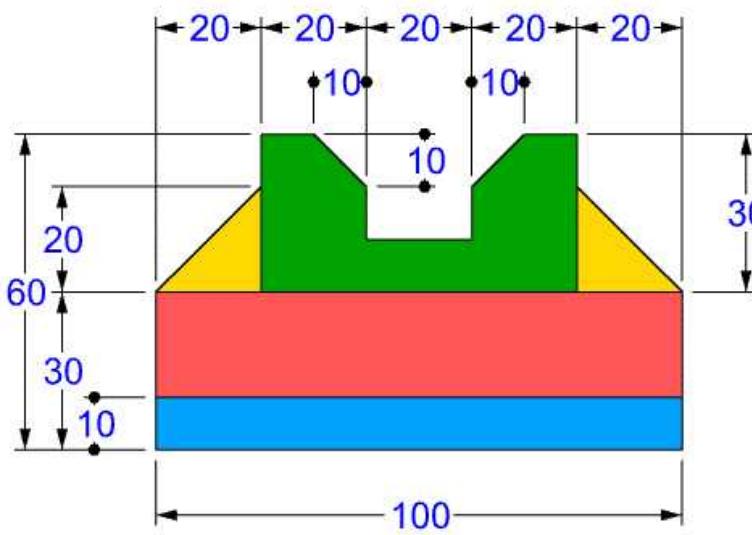
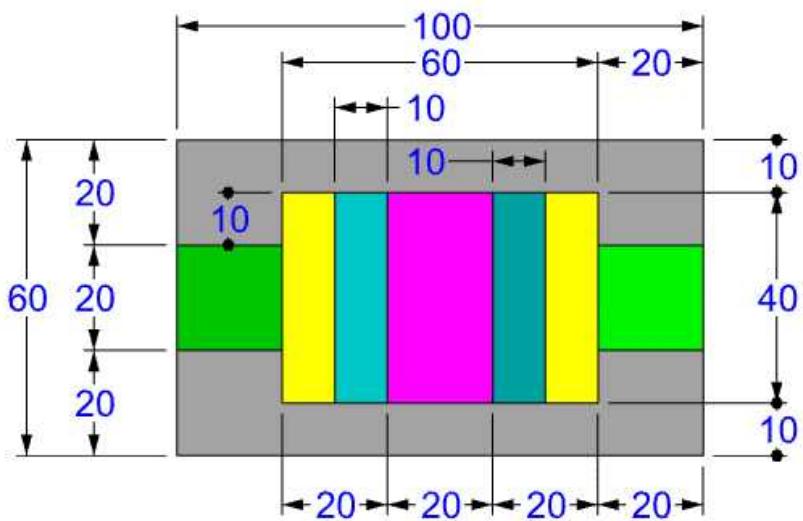
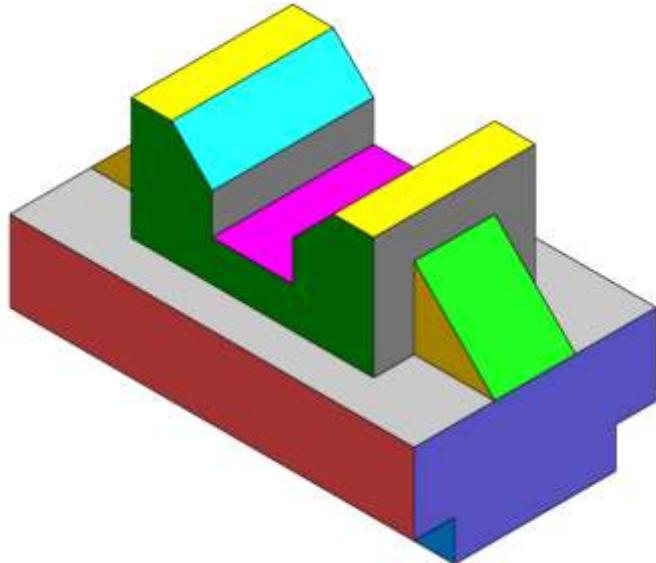
(SCALE 1:1) SECTION A-A



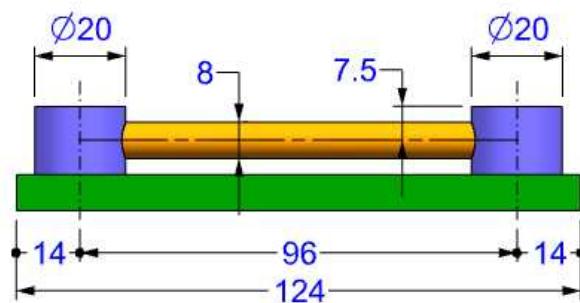
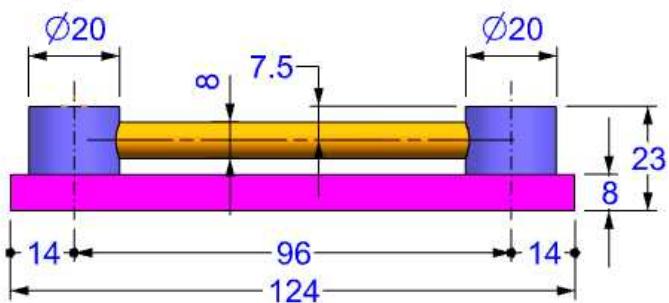
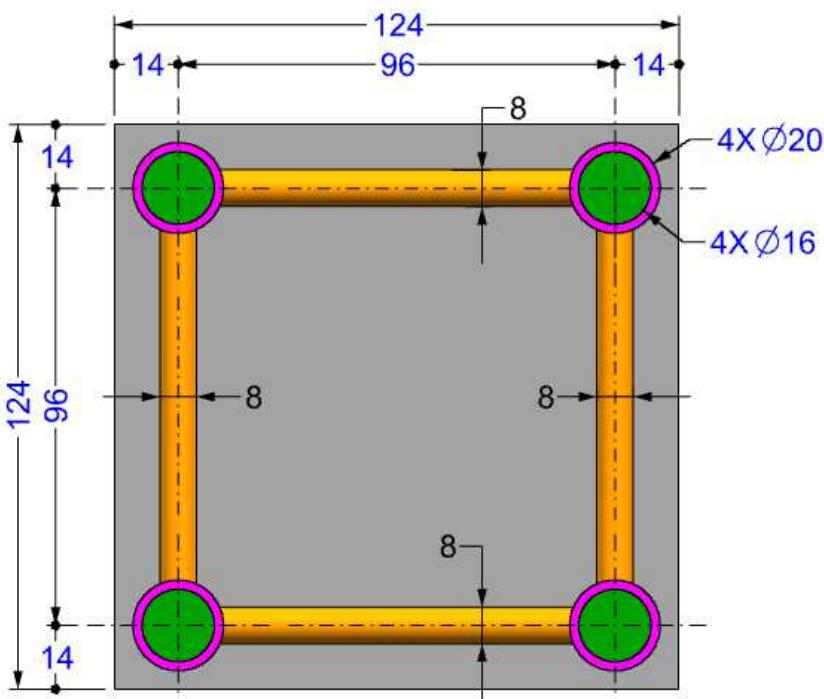
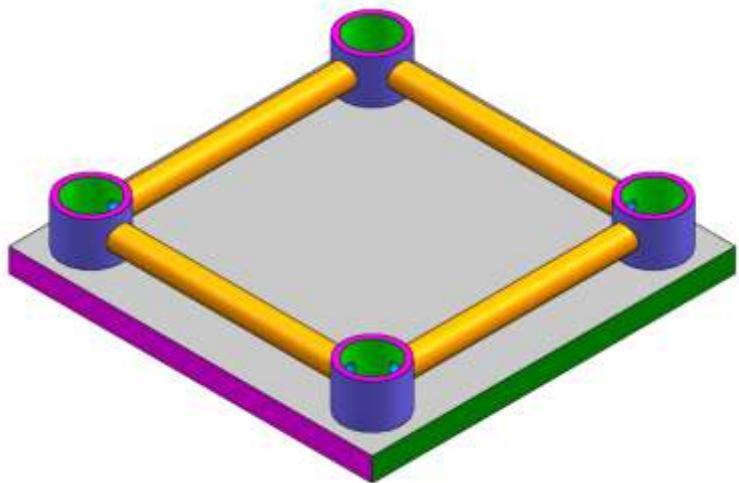
# **EXERCISE-98**



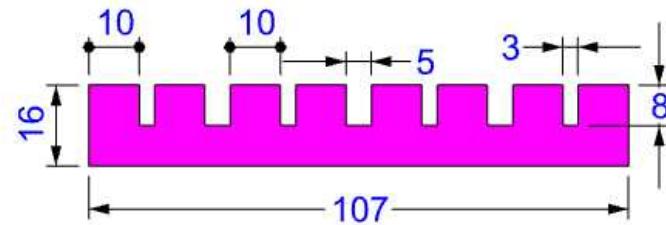
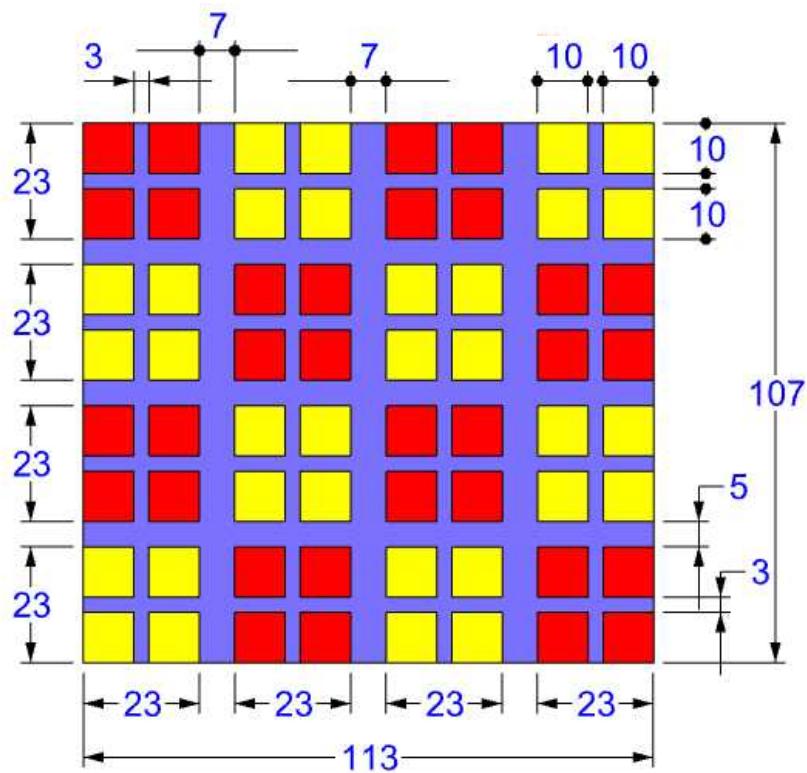
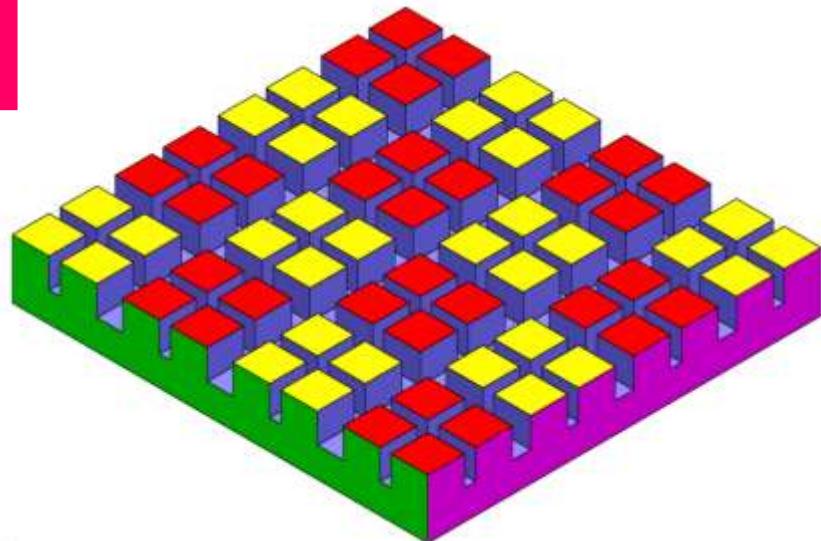
# EXERCISE-99



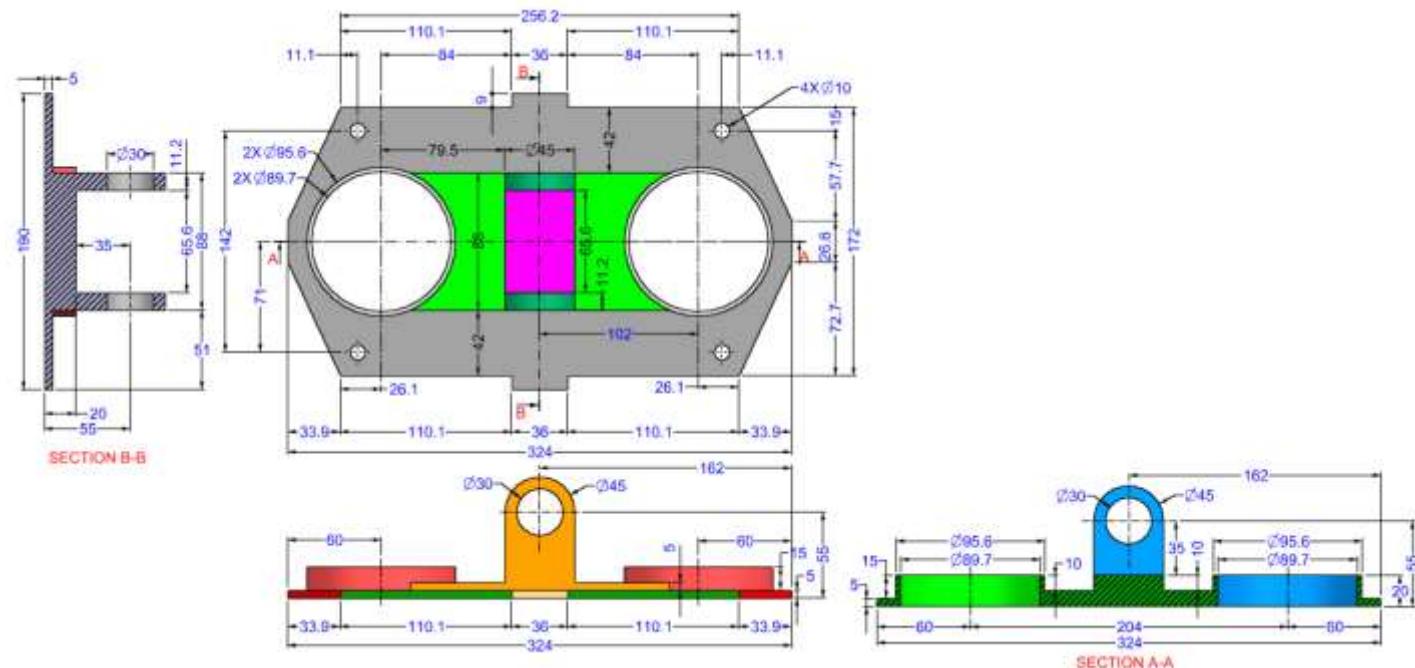
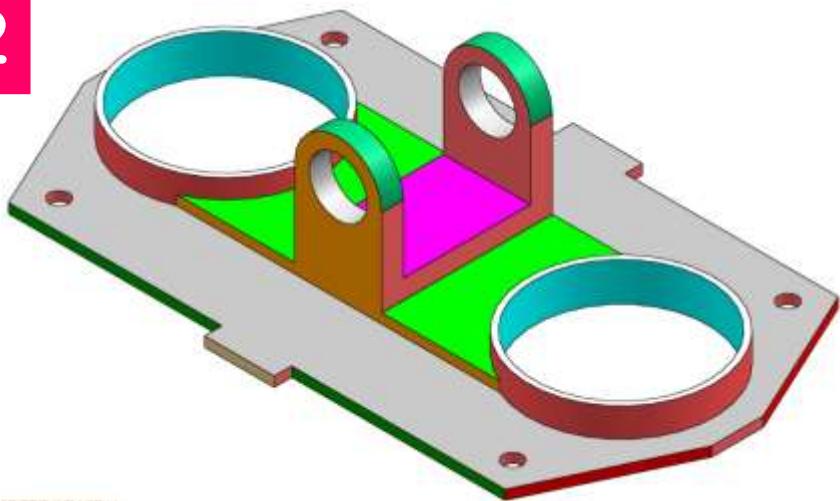
# EXERCISE-100



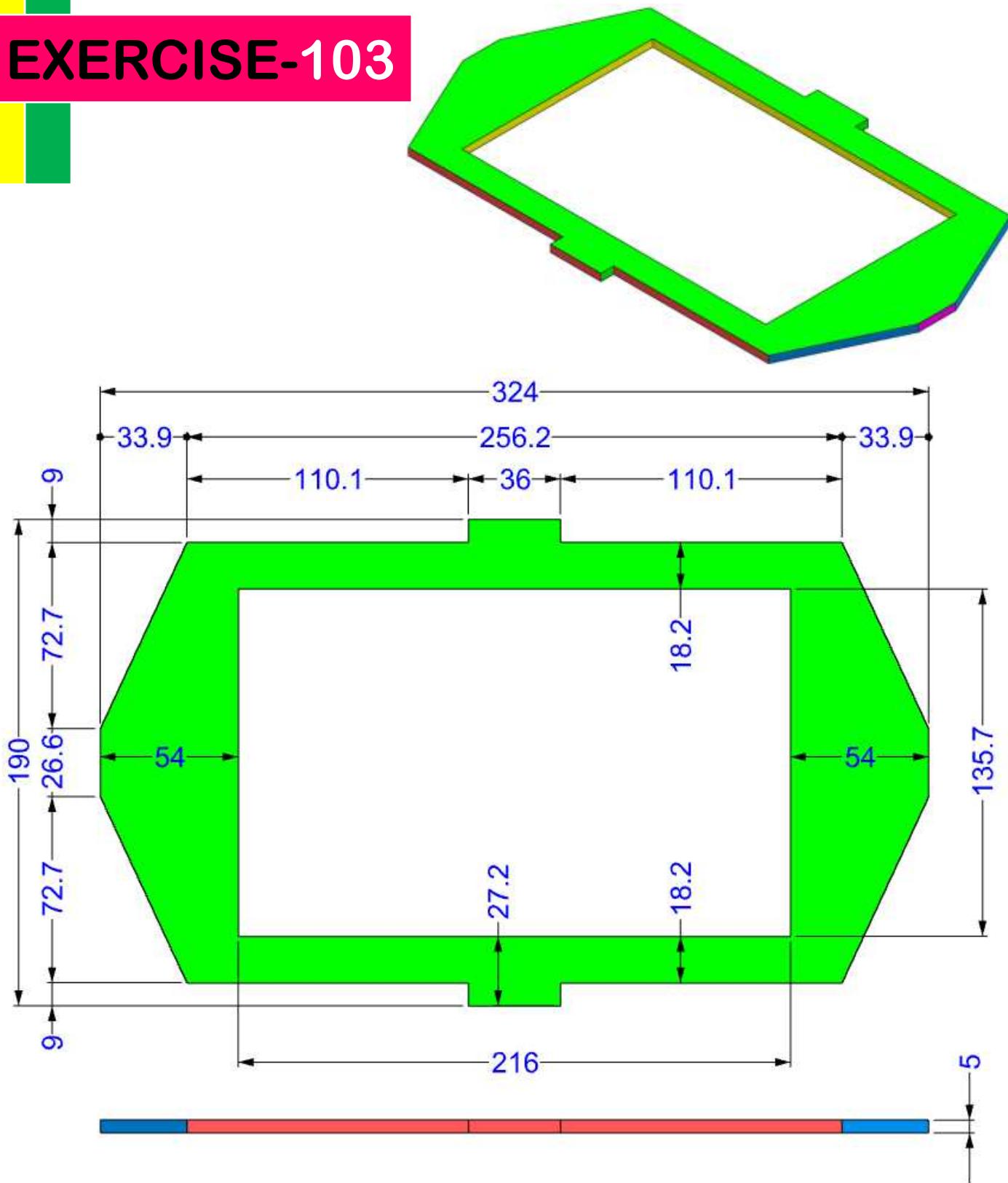
# EXERCISE-101



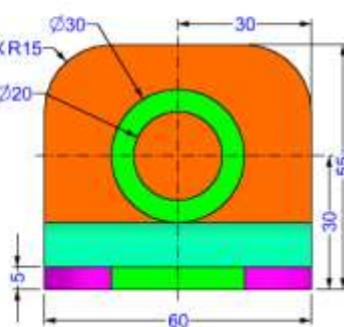
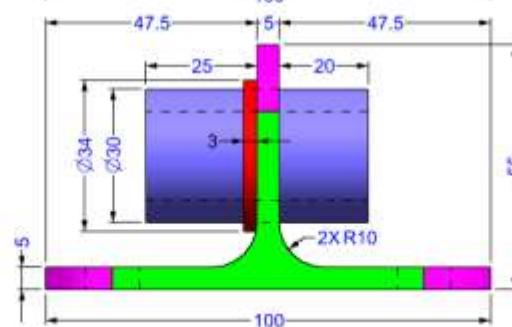
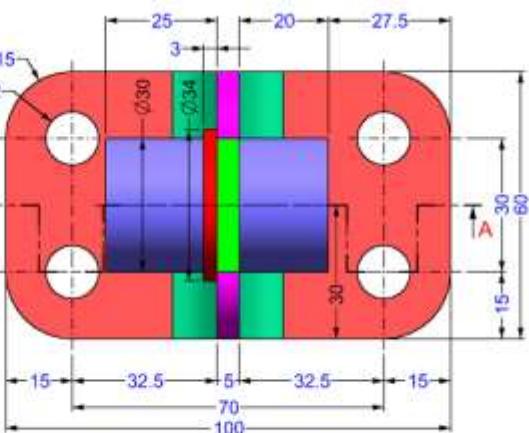
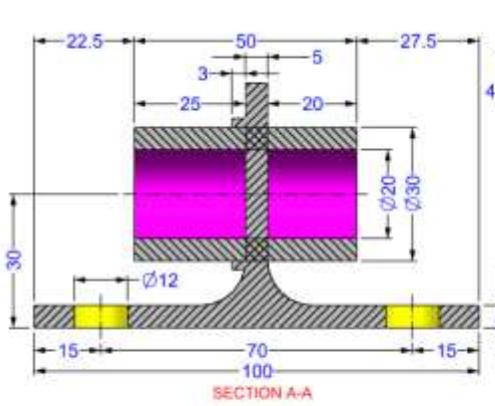
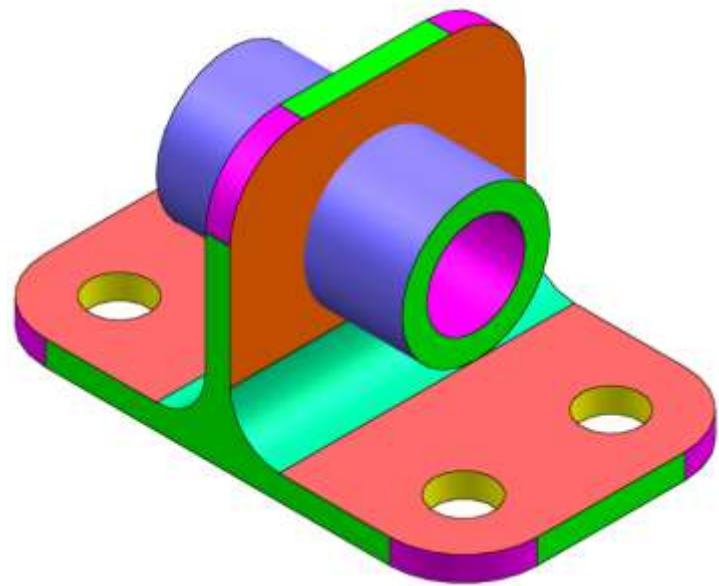
# **EXERCISE-102**



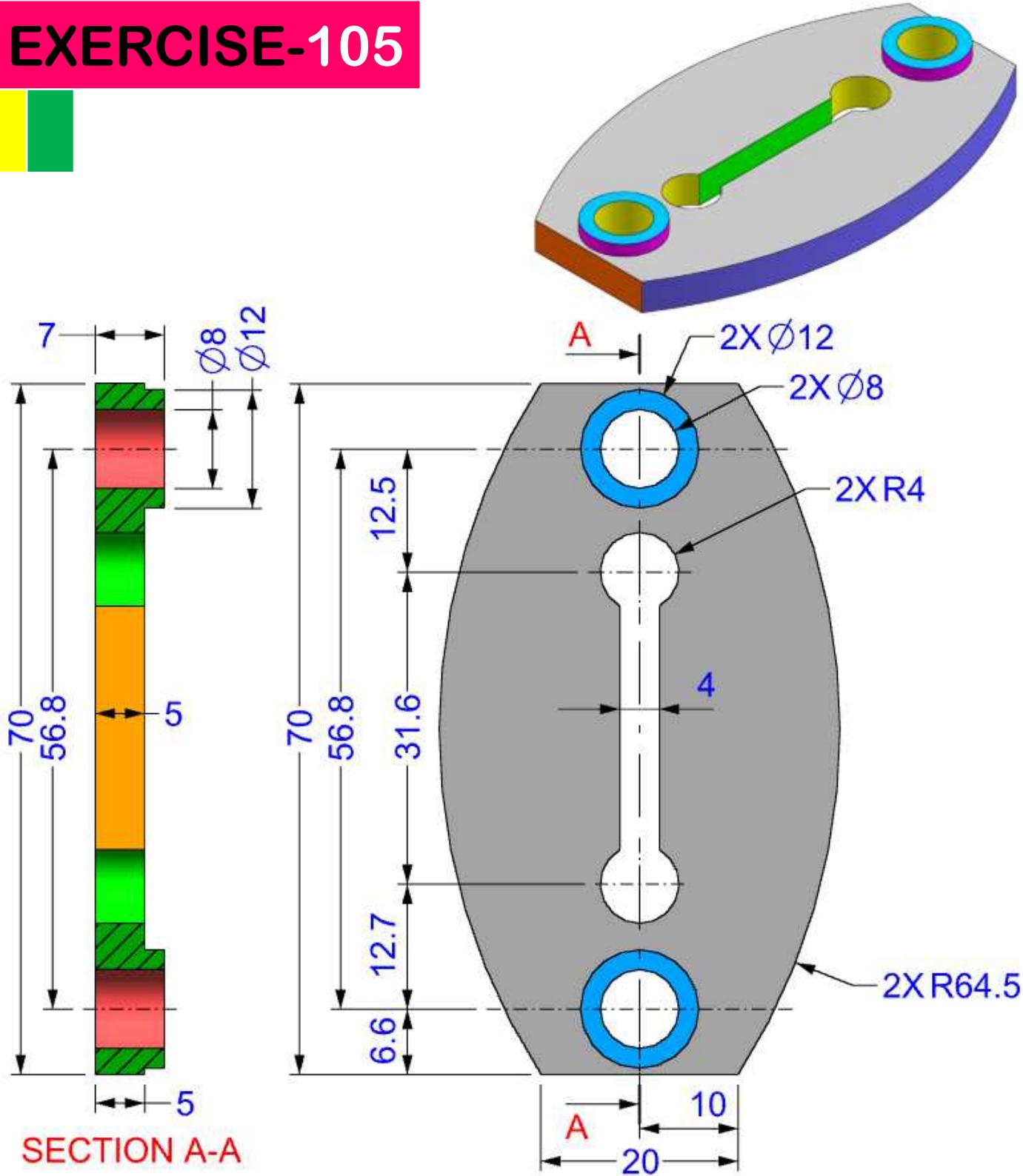
# EXERCISE-103



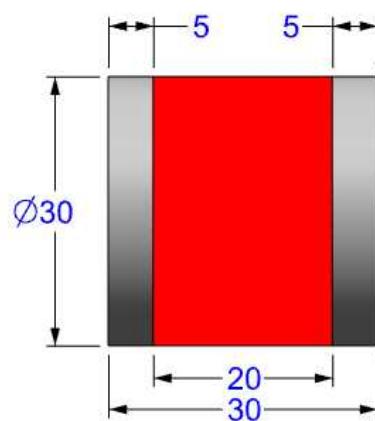
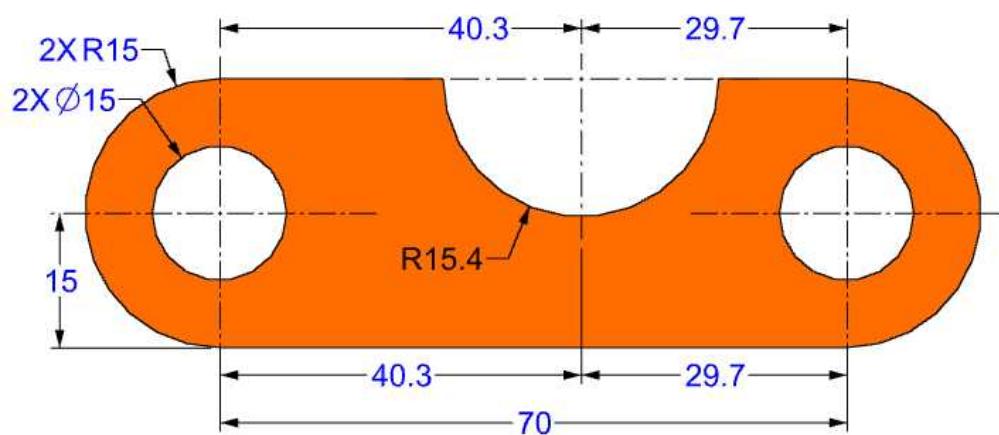
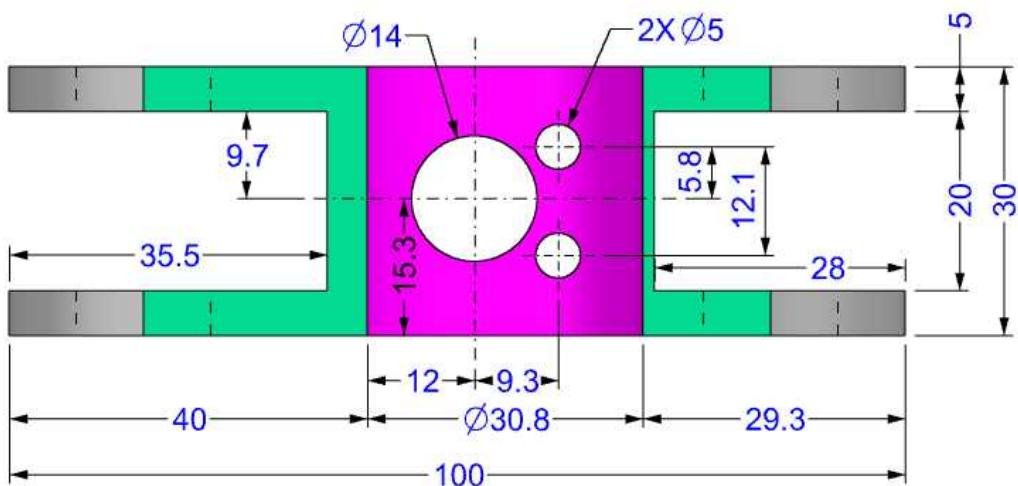
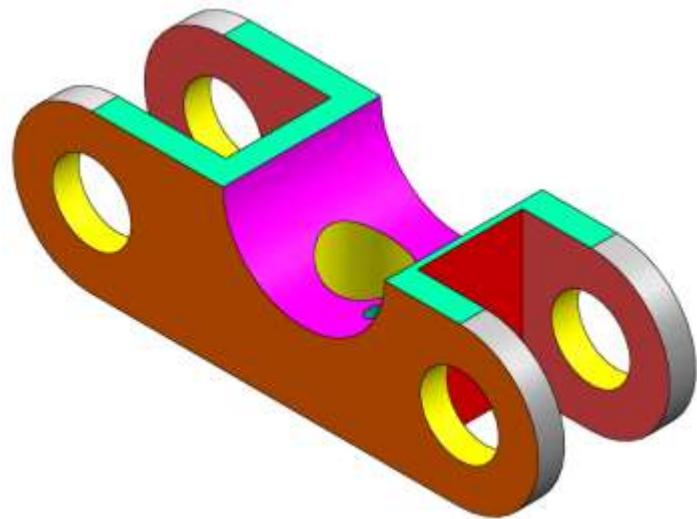
# **EXERCISE-104**



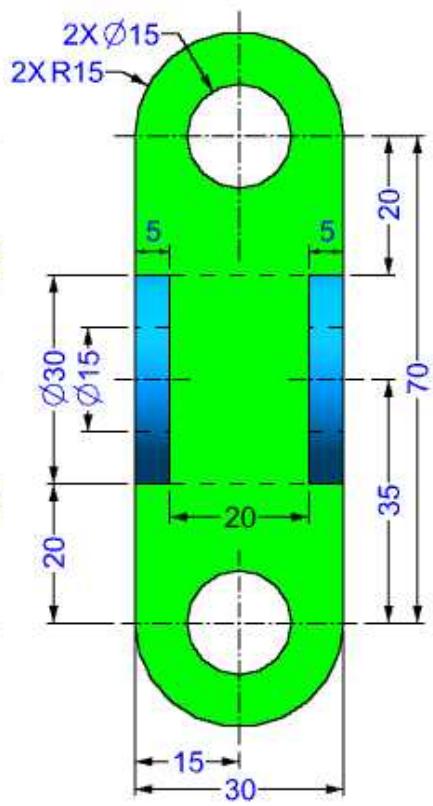
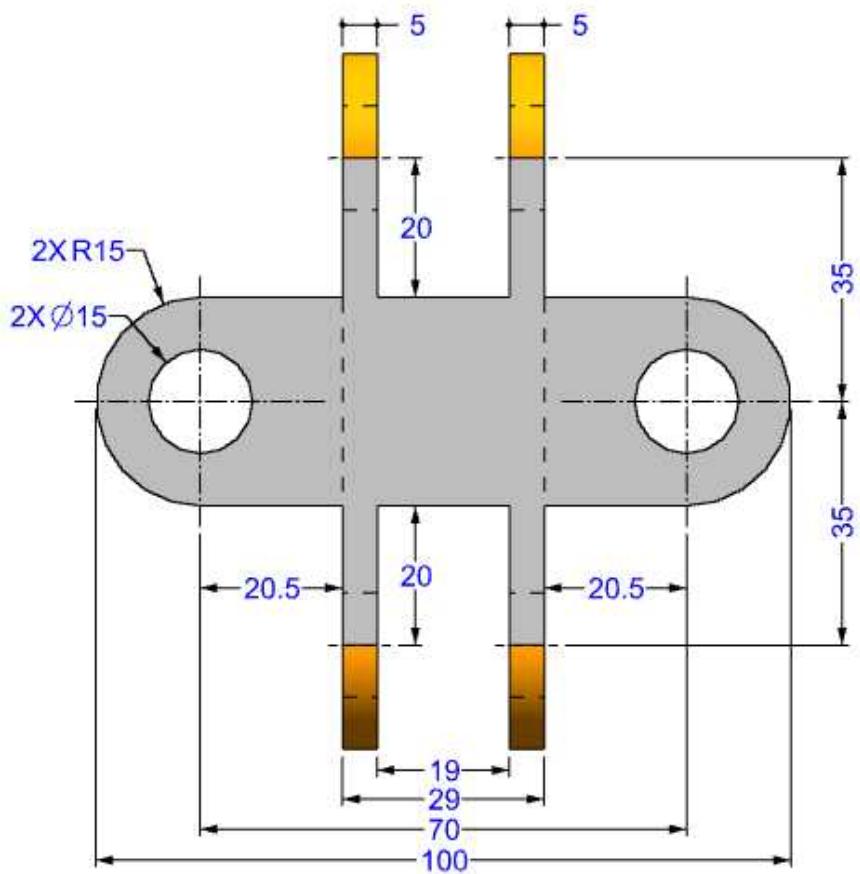
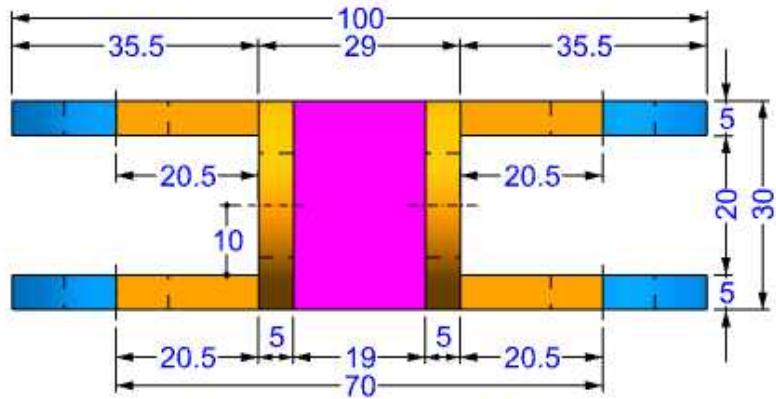
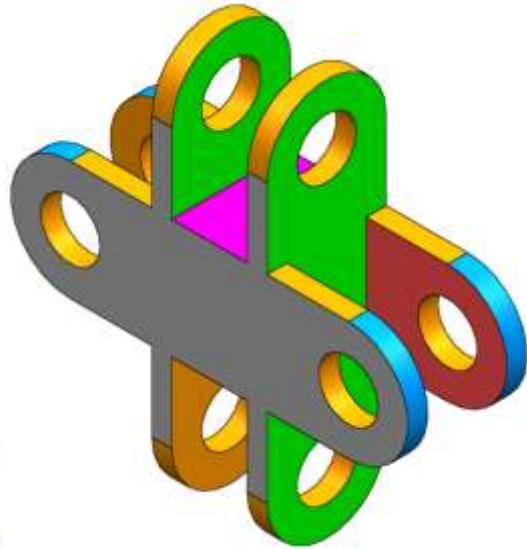
# EXERCISE-105



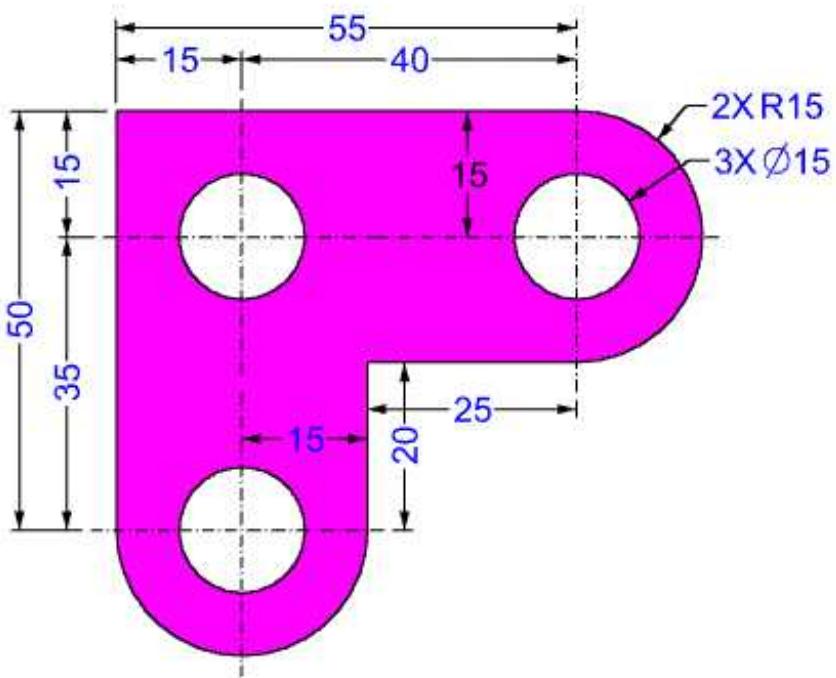
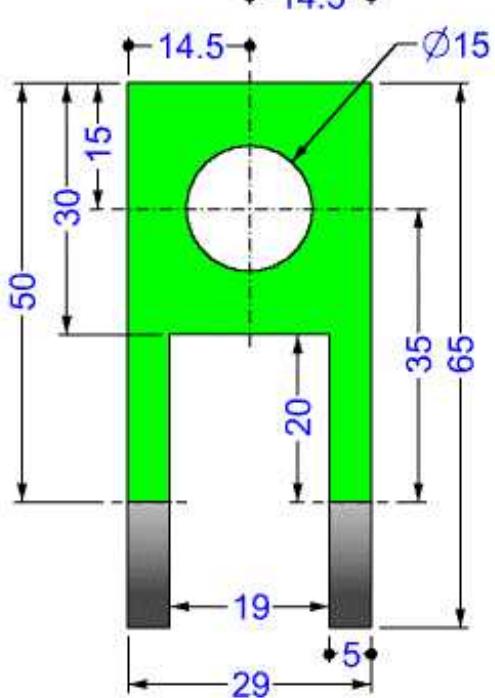
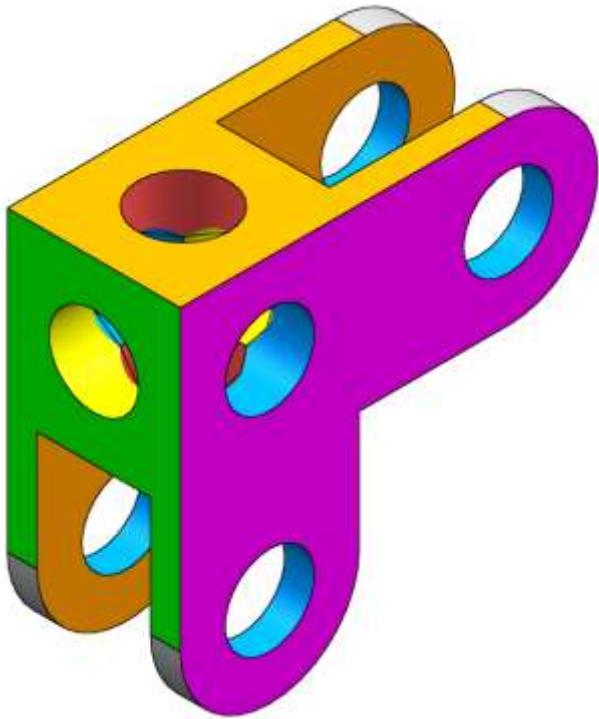
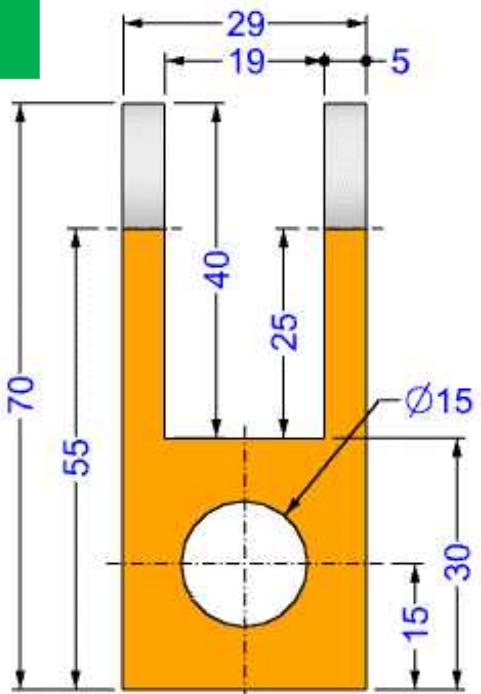
# EXERCISE-106



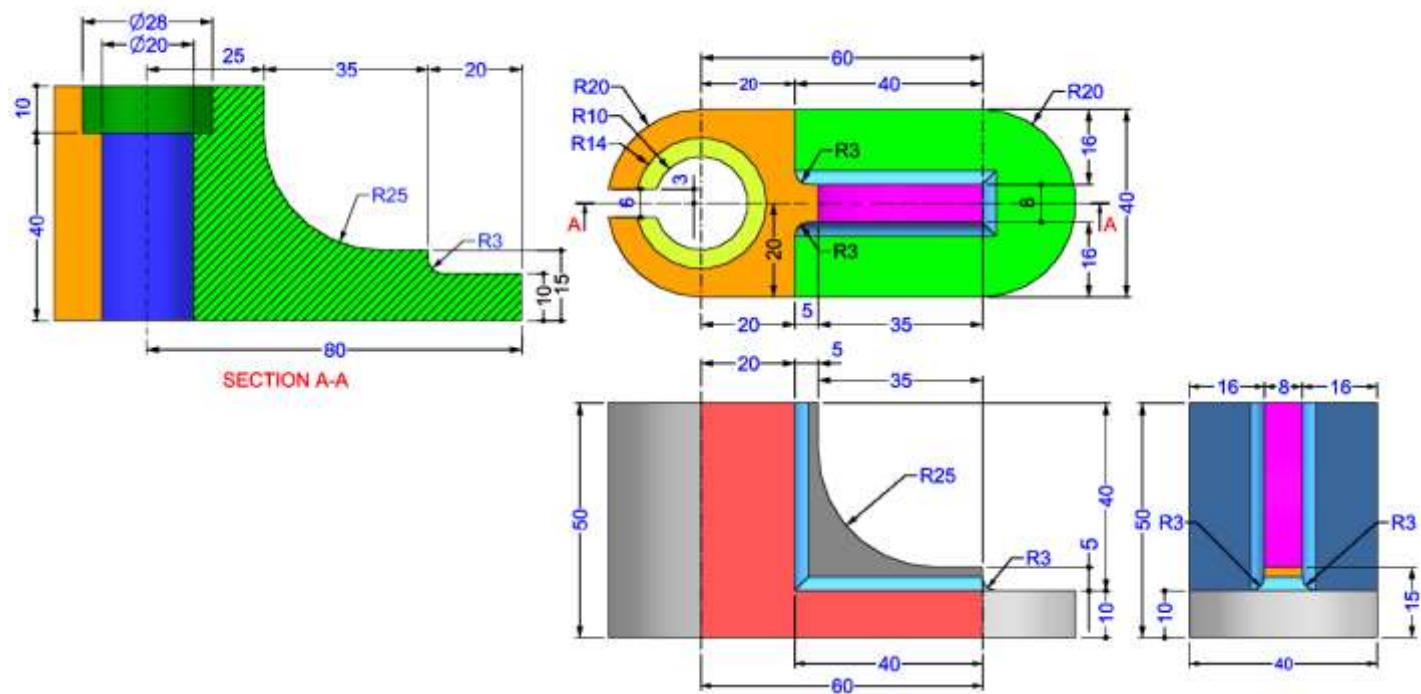
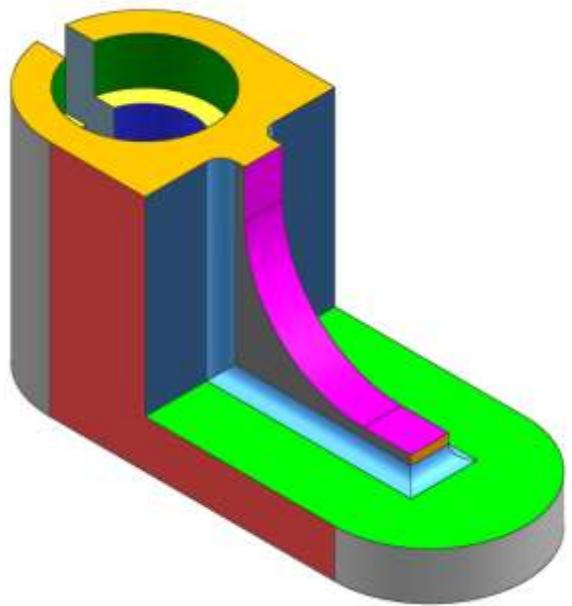
# **EXERCISE-107**



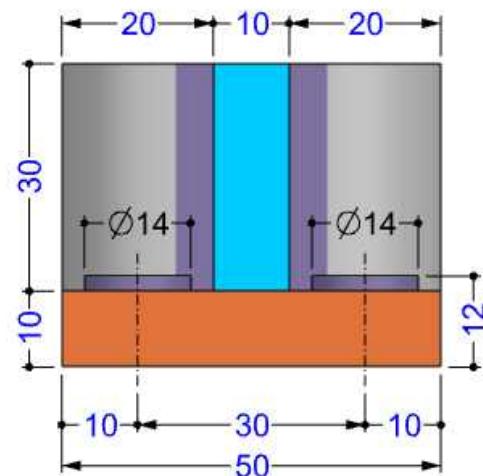
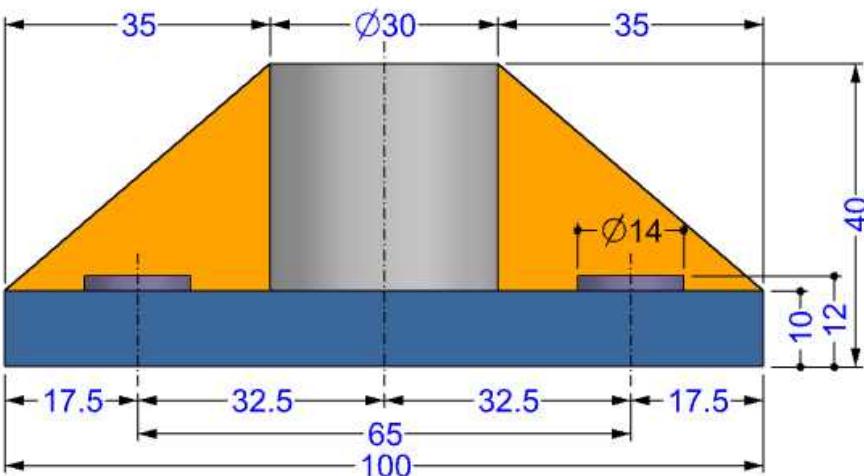
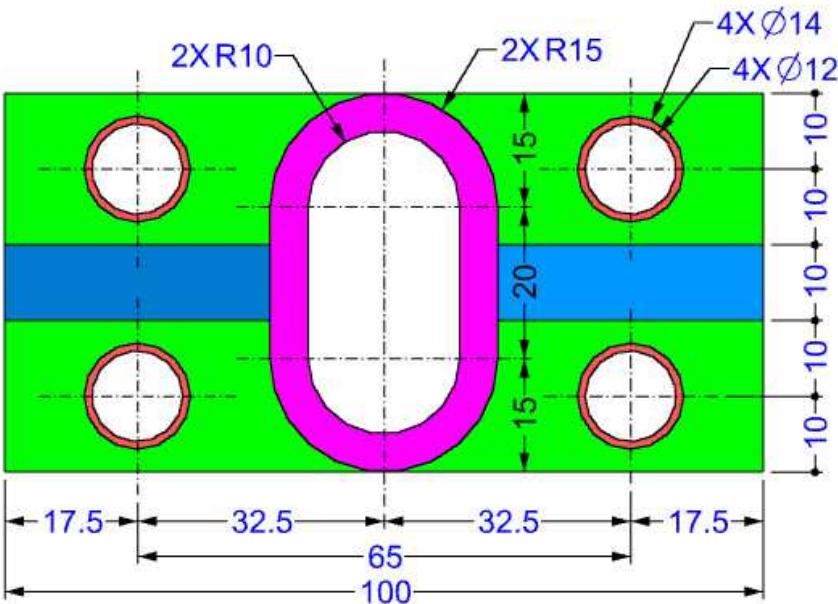
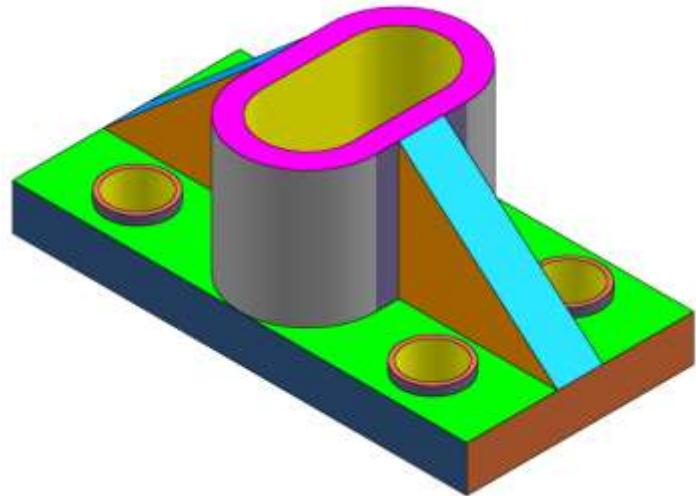
# EXERCISE-108



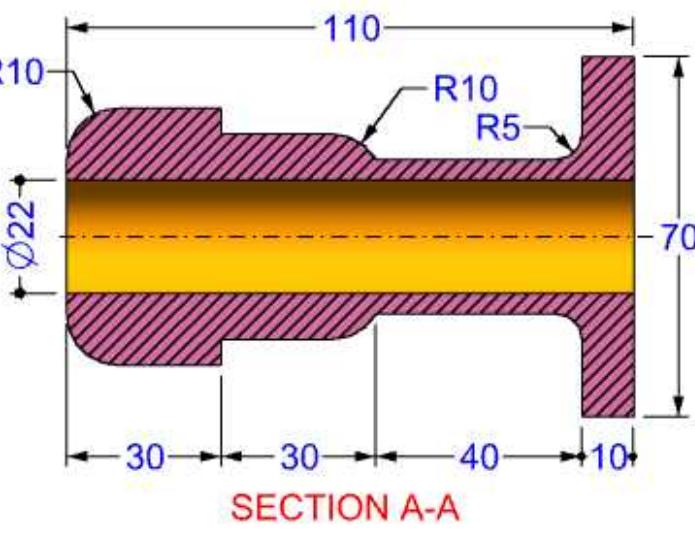
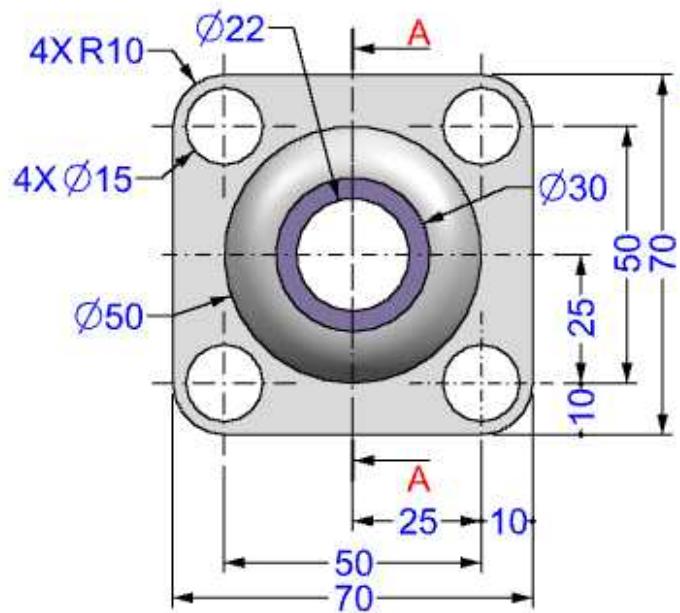
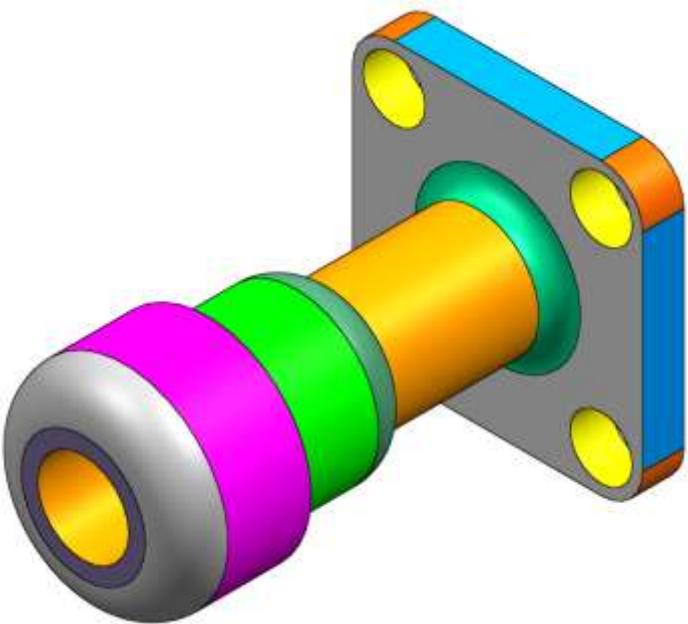
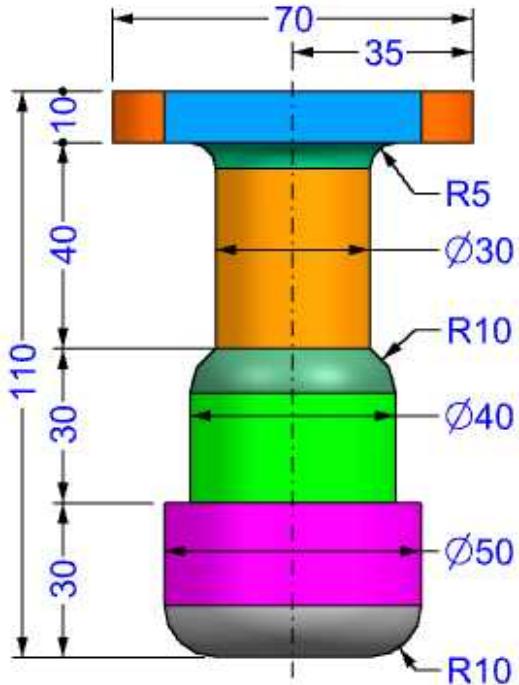
# EXERCISE-109



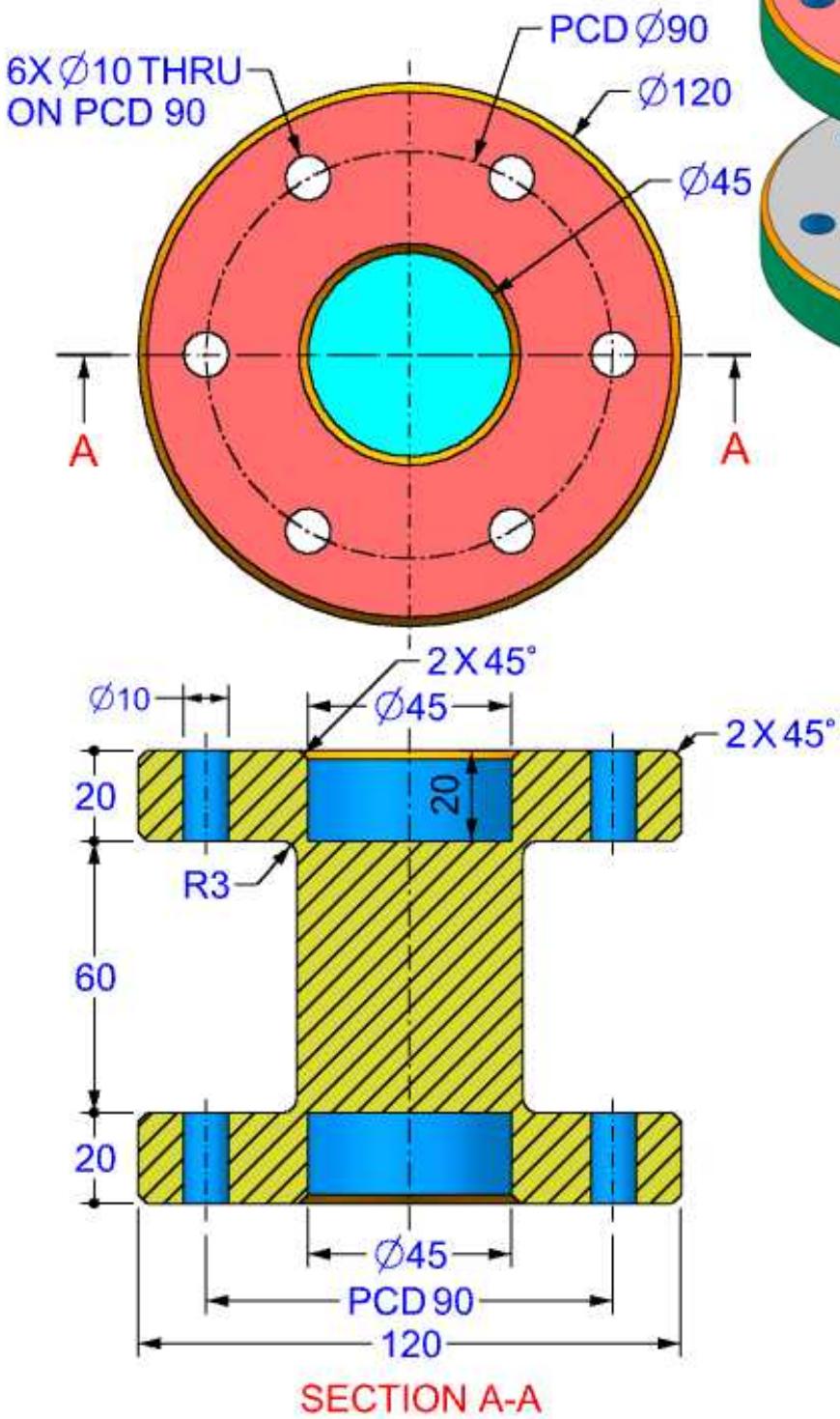
# EXERCISE-110



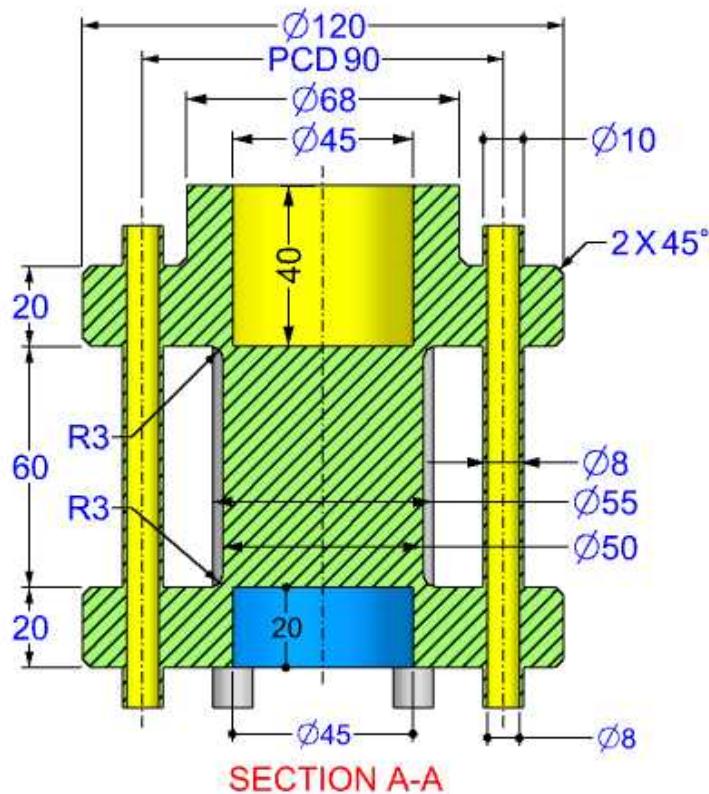
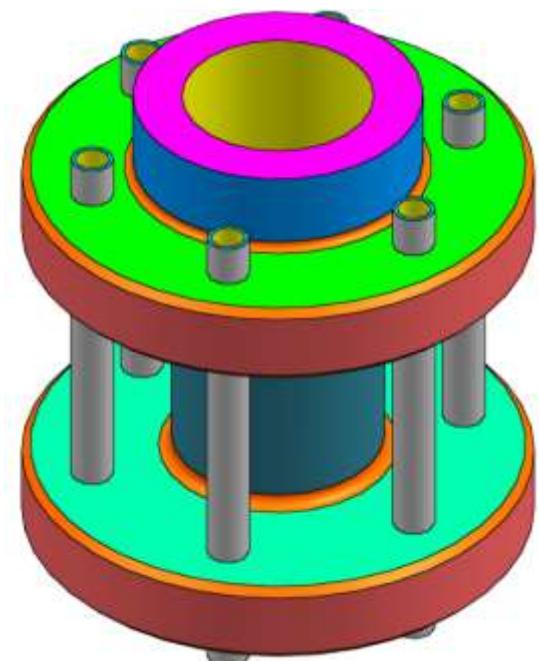
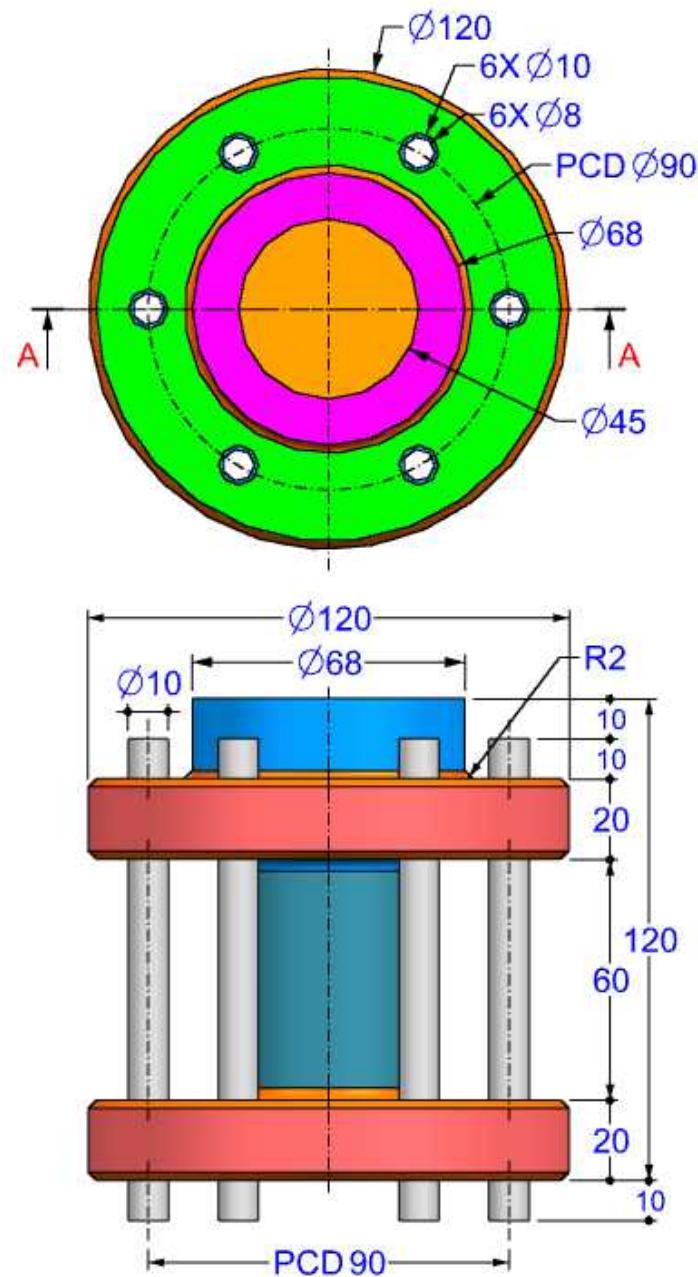
# EXERCISE-111



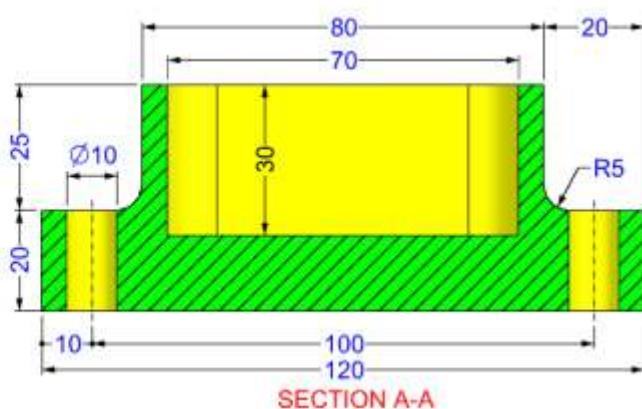
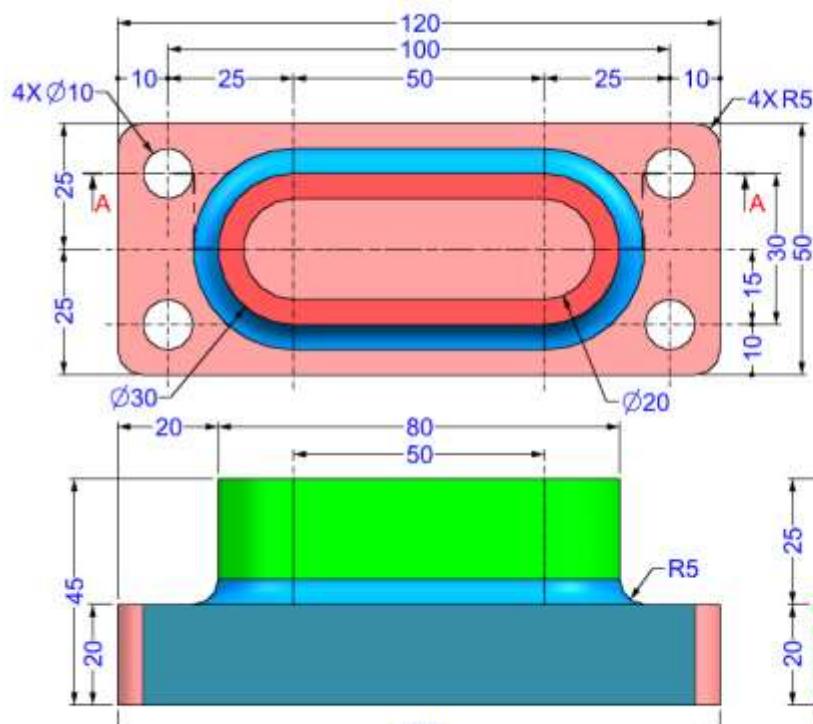
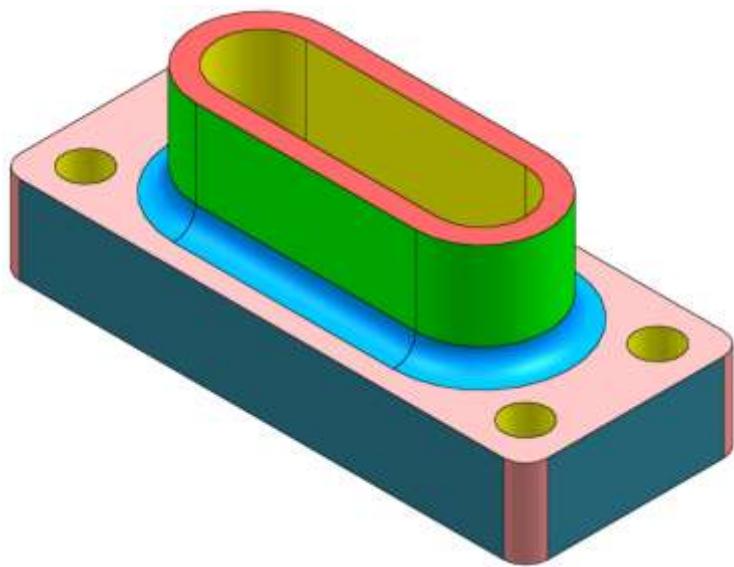
# EXERCISE-112



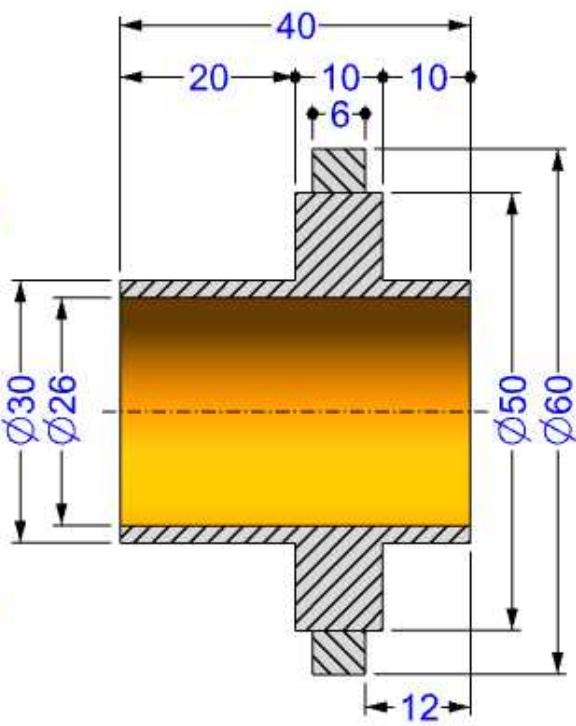
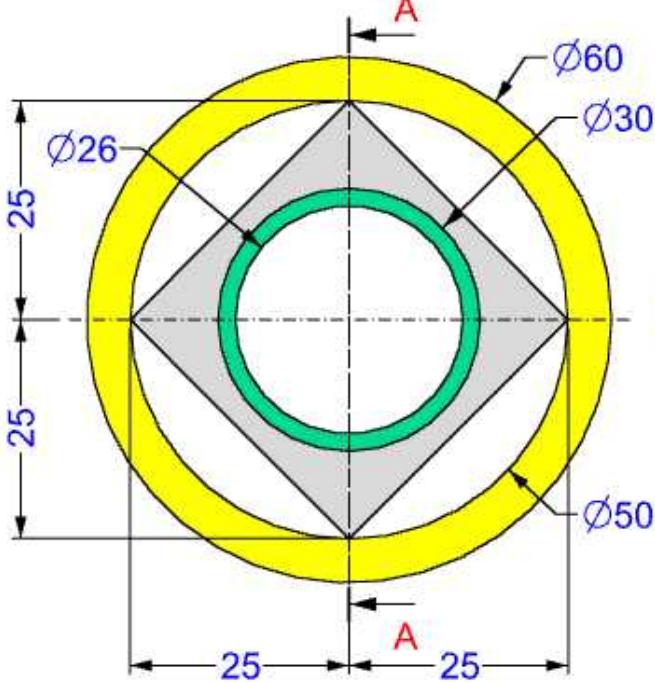
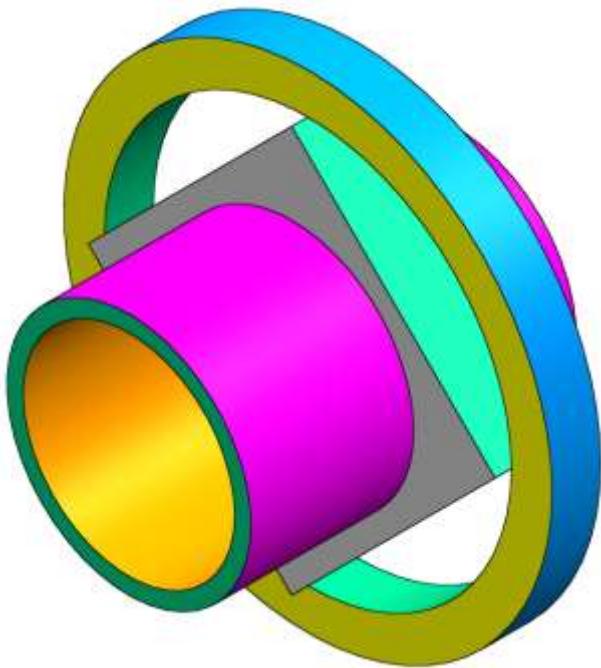
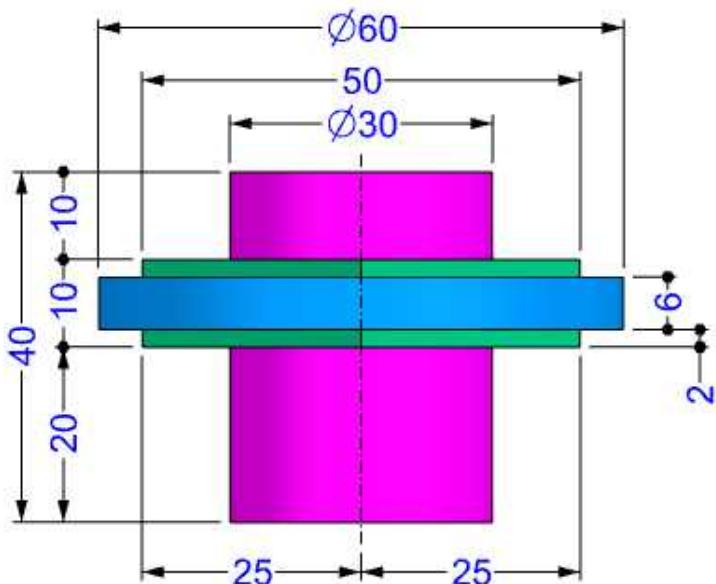
# EXERCISE-113



# EXERCISE-114

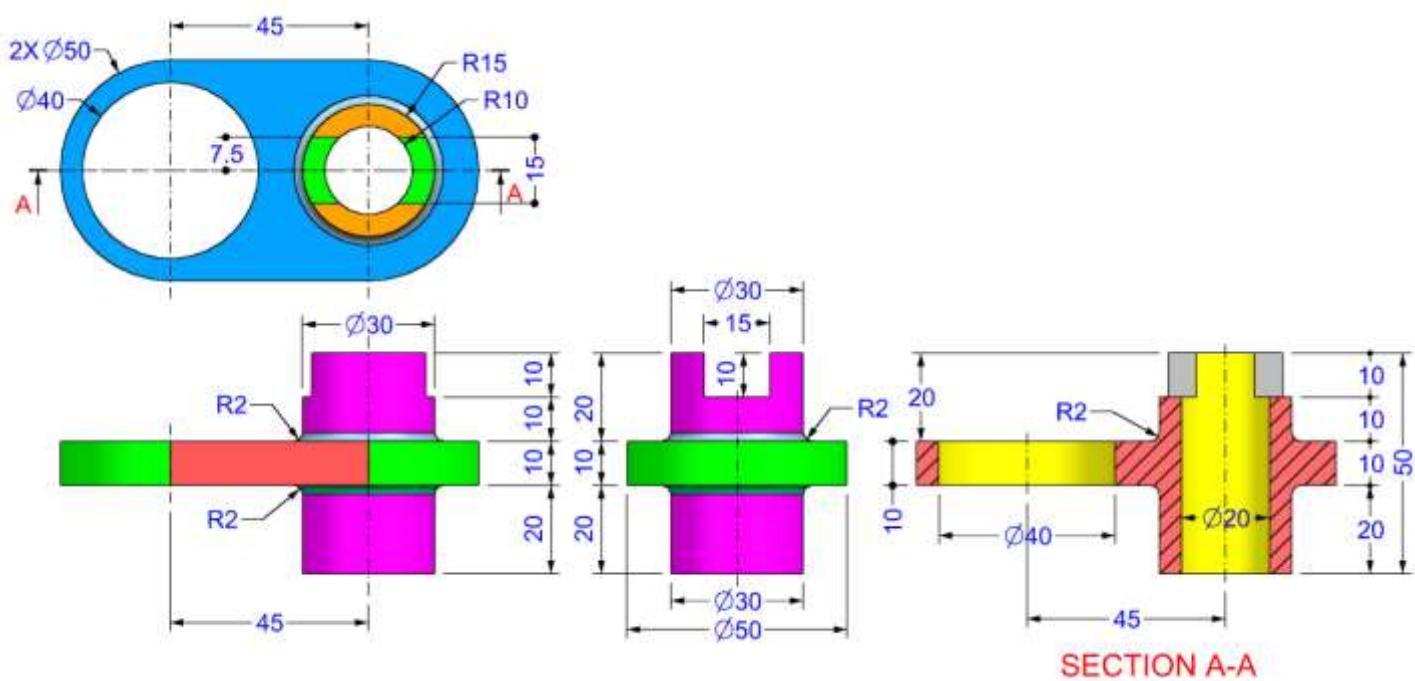
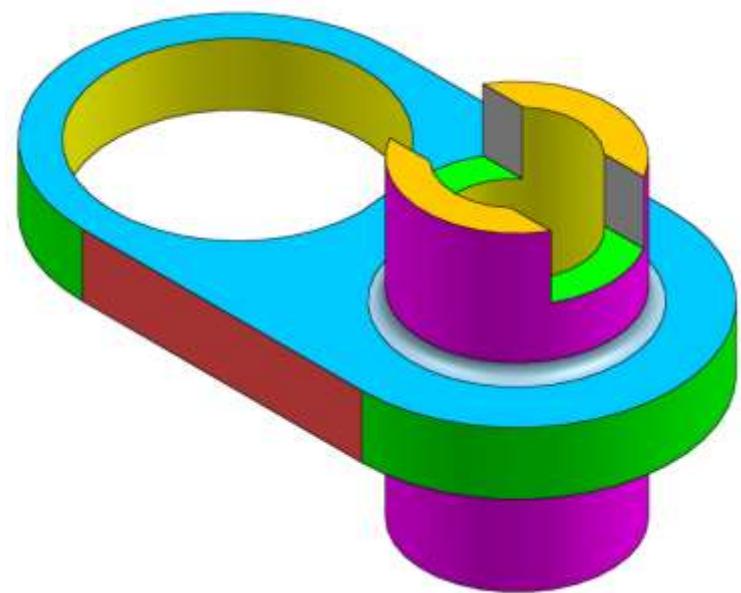


# EXERCISE-115

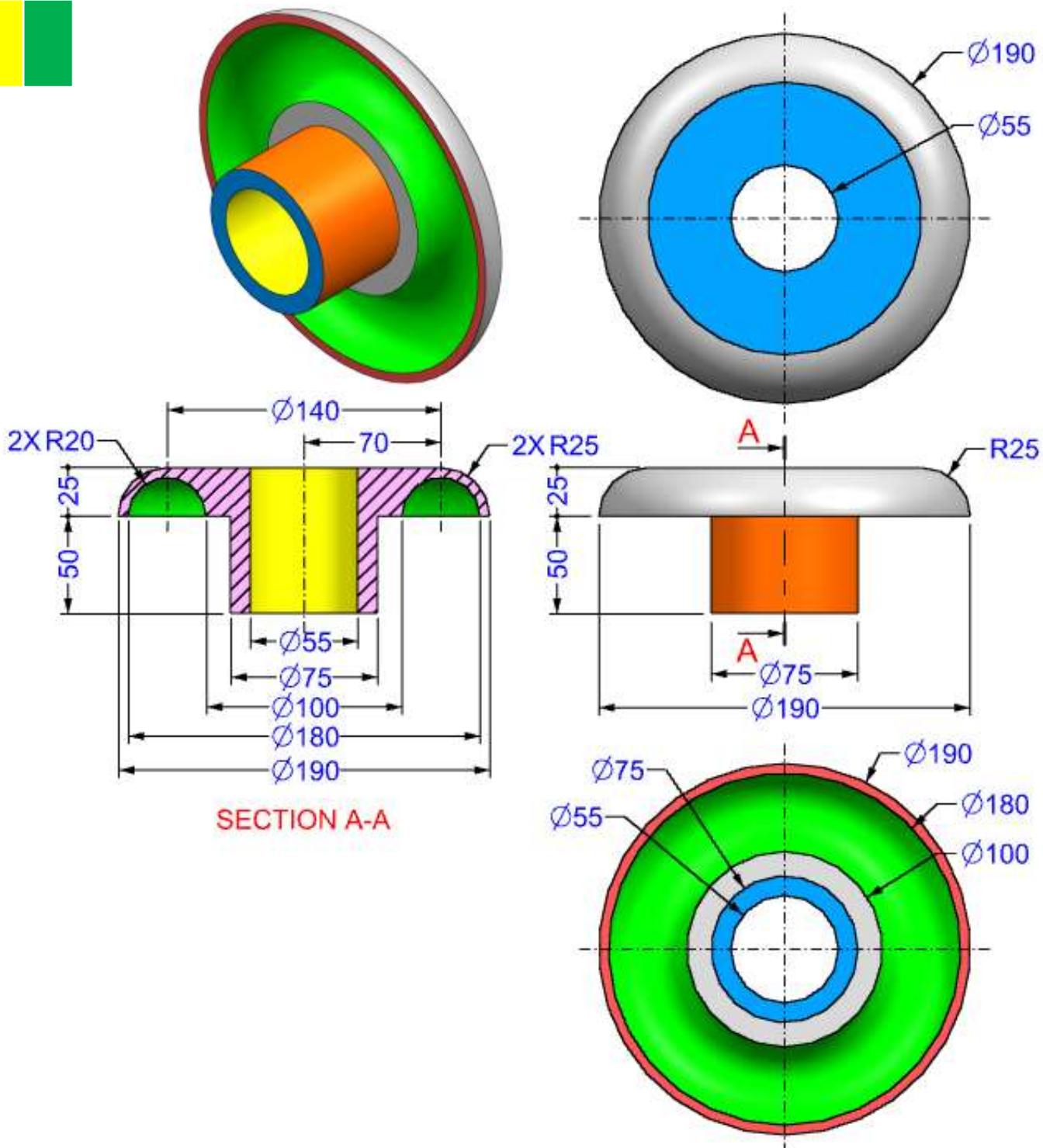


SECTION A-A

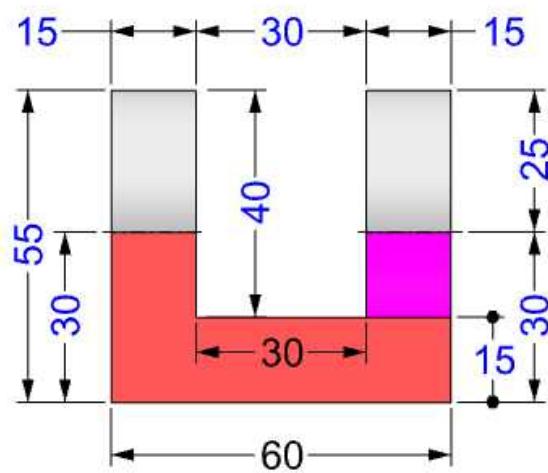
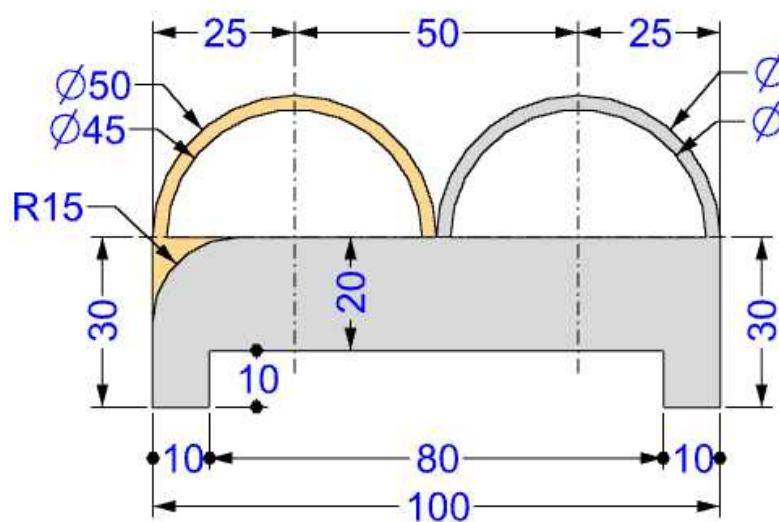
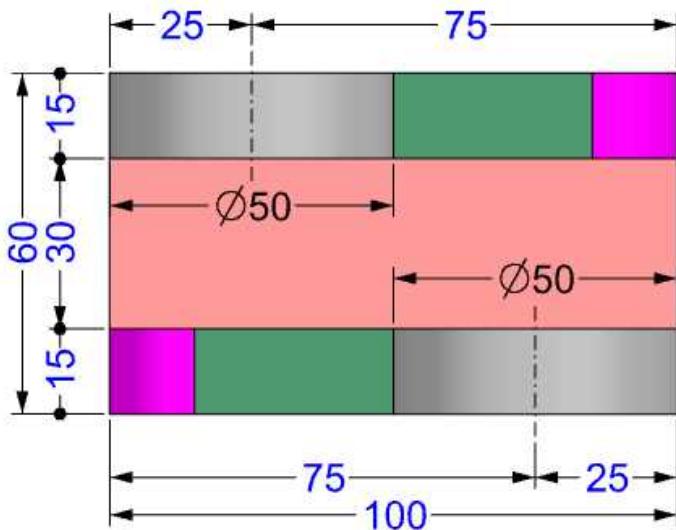
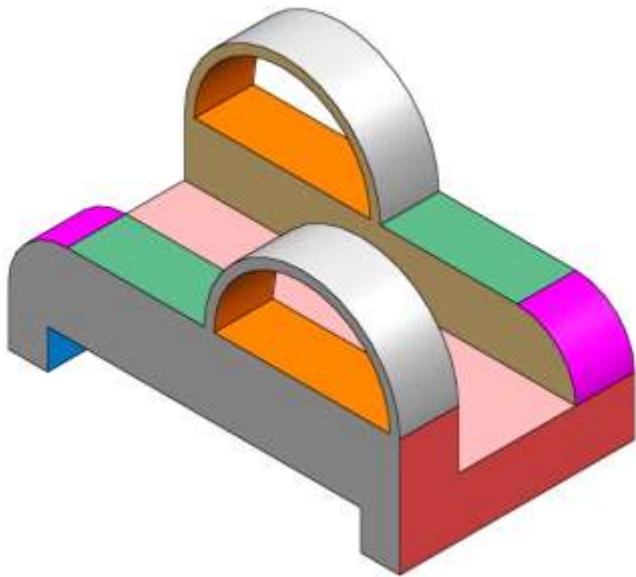
# EXERCISE-116



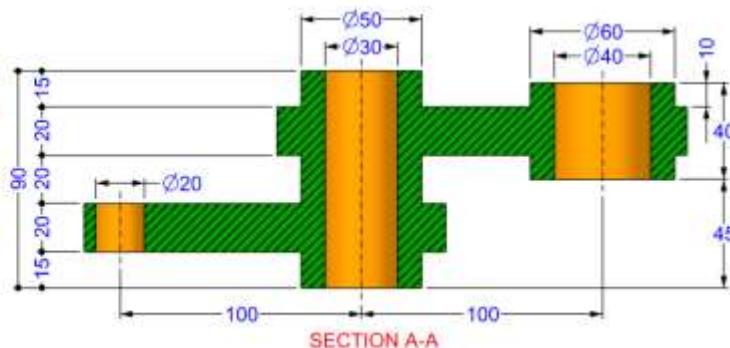
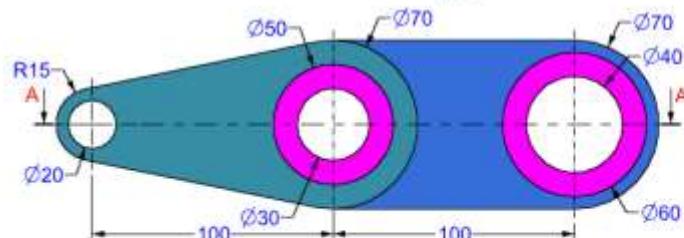
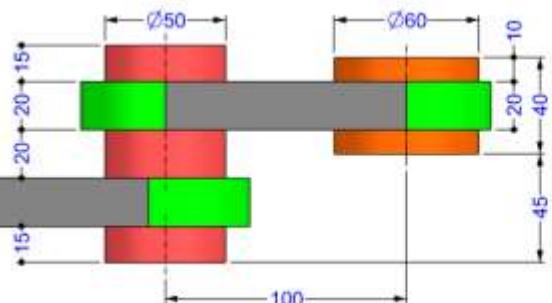
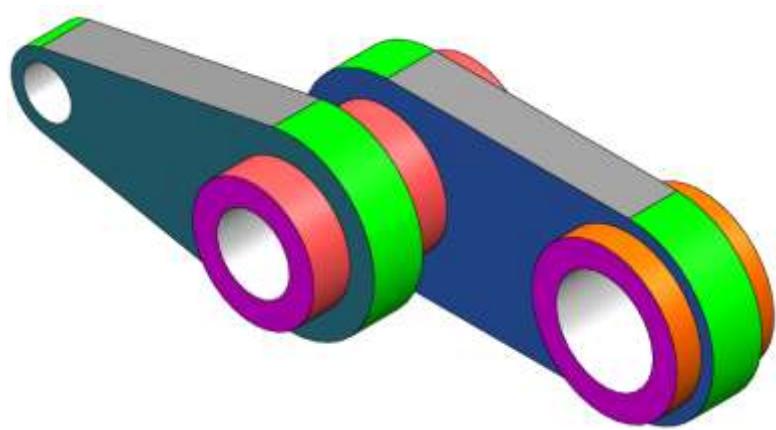
## EXERCISE-117



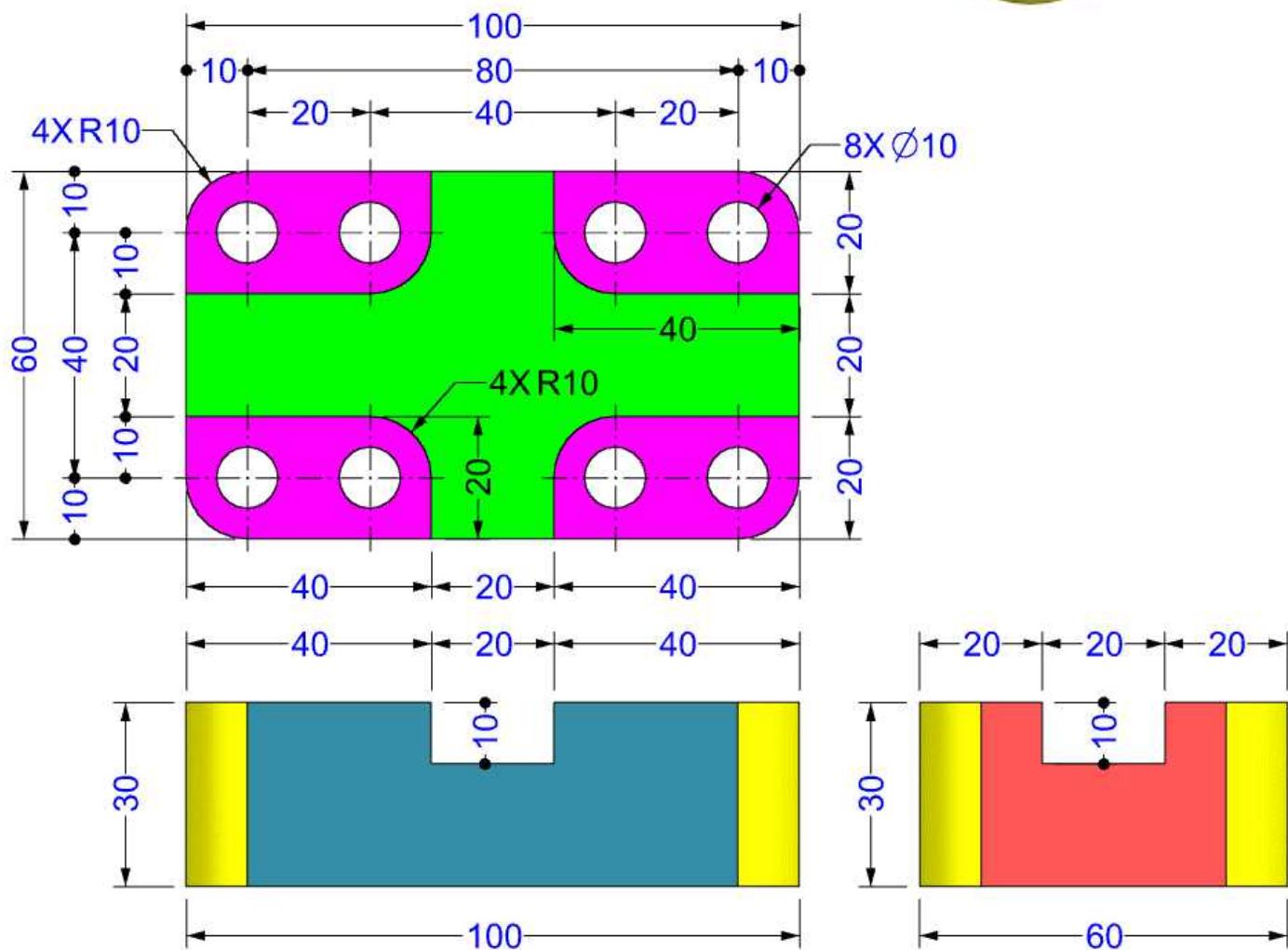
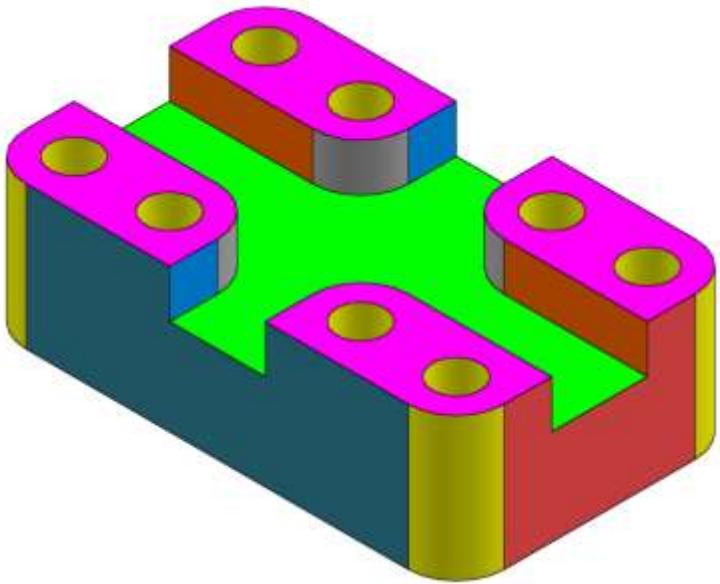
# EXERCISE-118



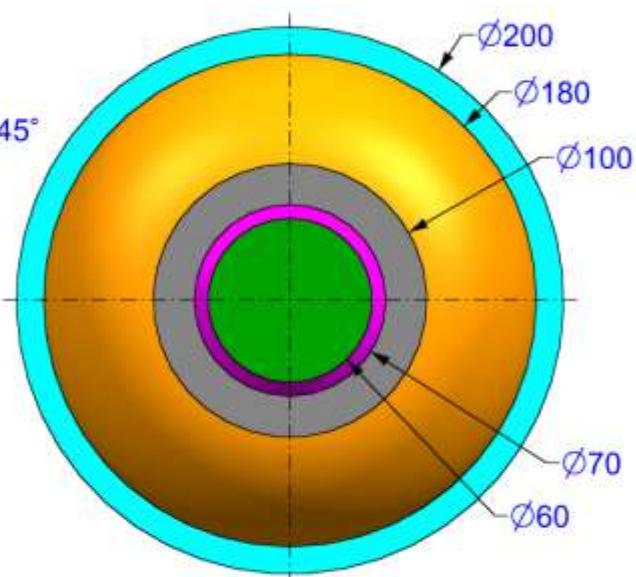
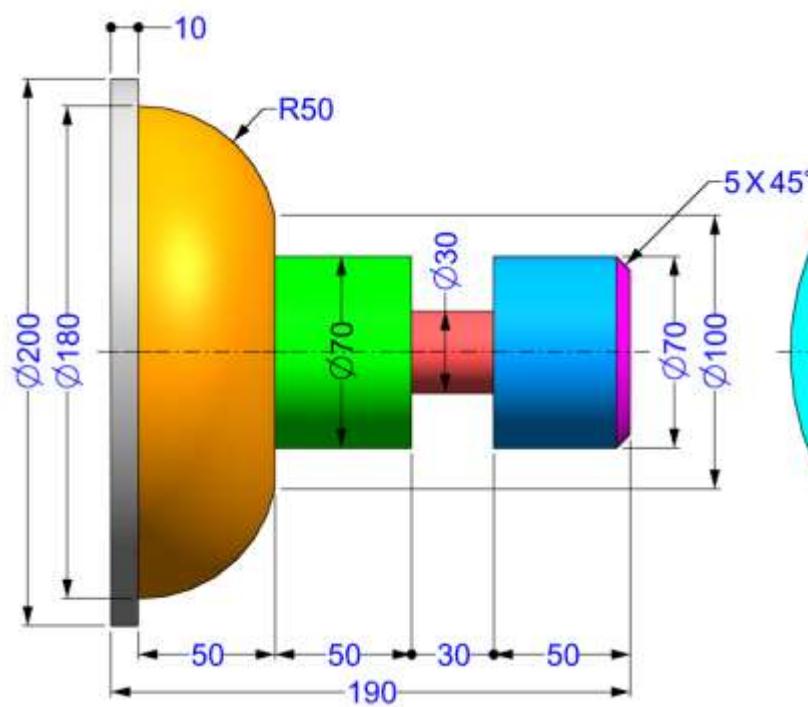
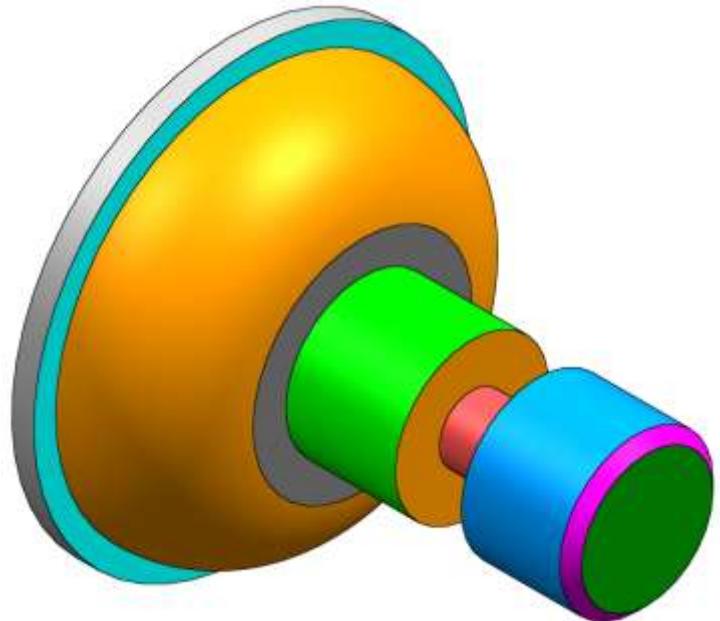
# EXERCISE-119



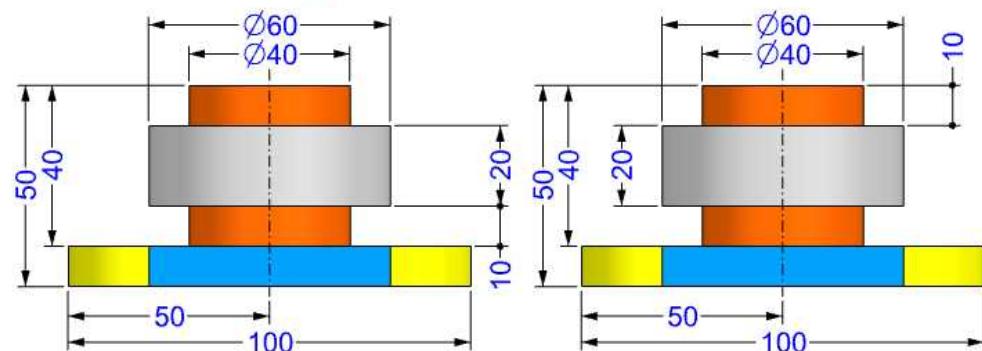
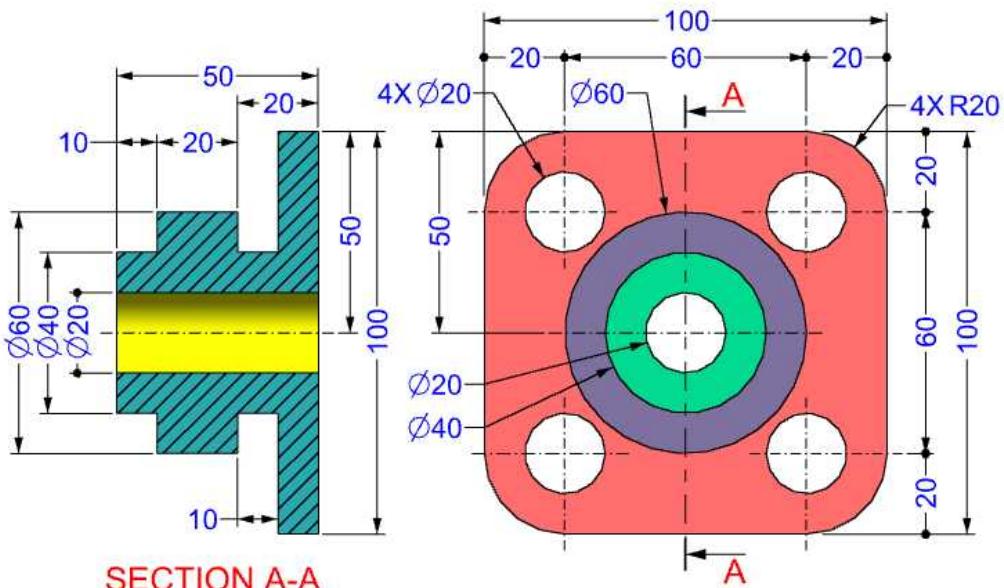
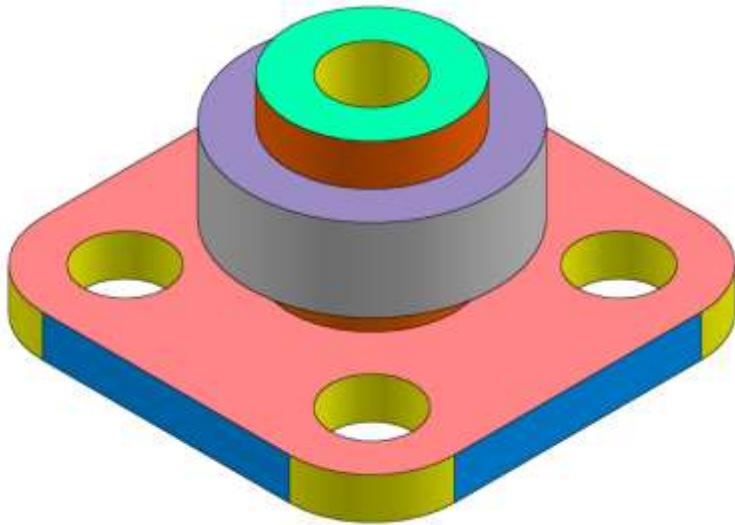
# **EXERCISE-120**



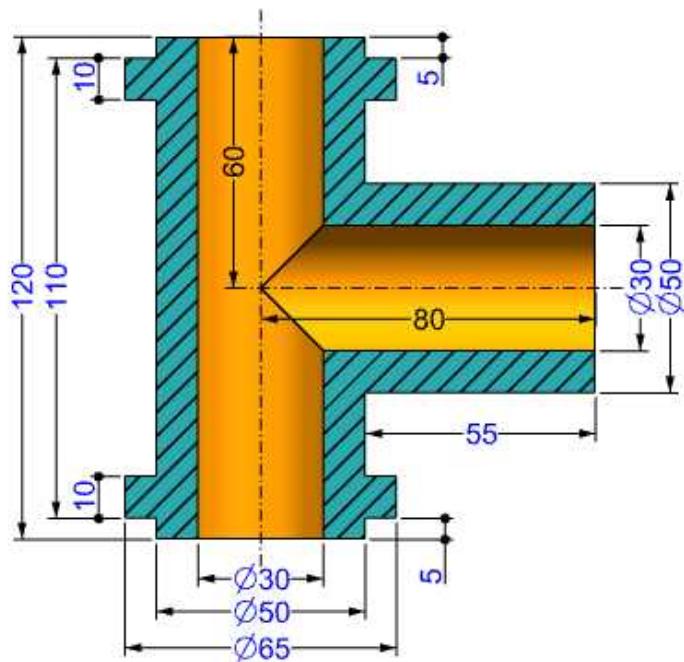
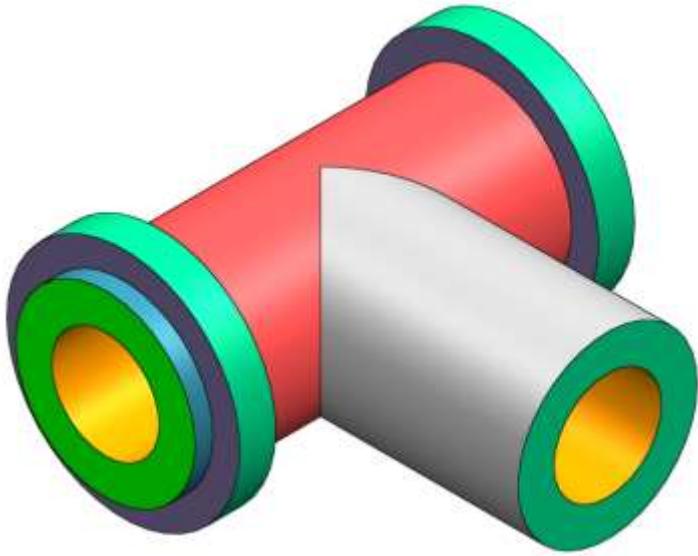
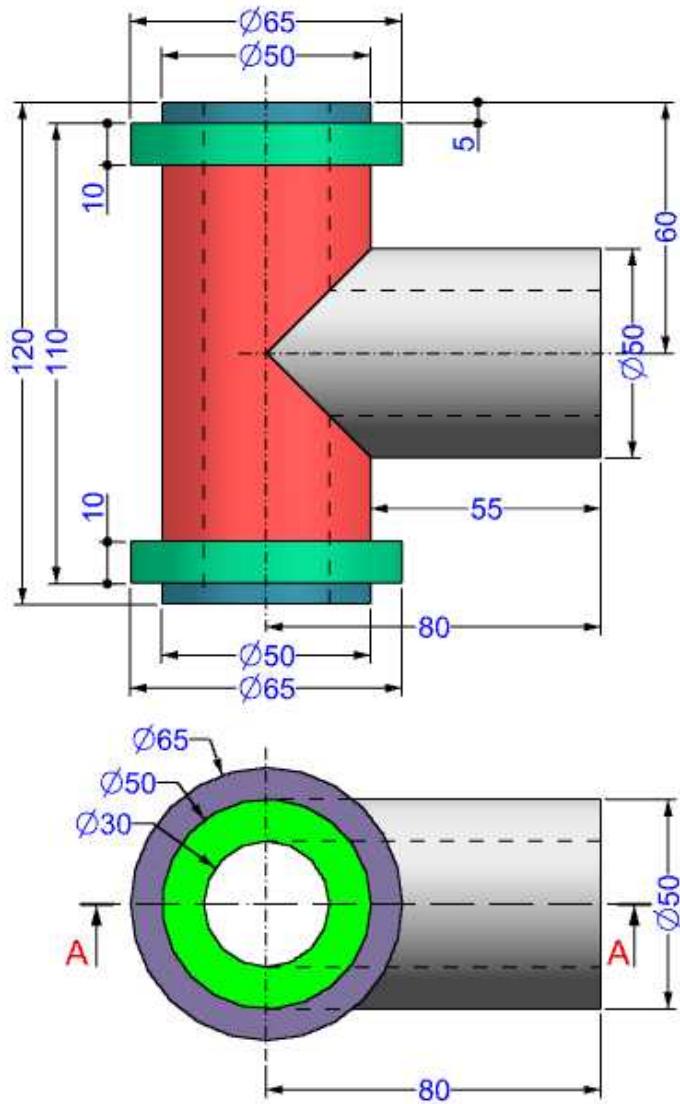
# **EXERCISE-121**



# **EXERCISE-122**

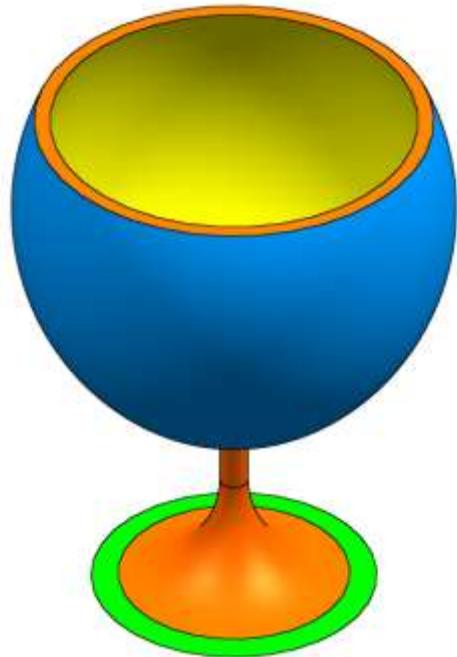
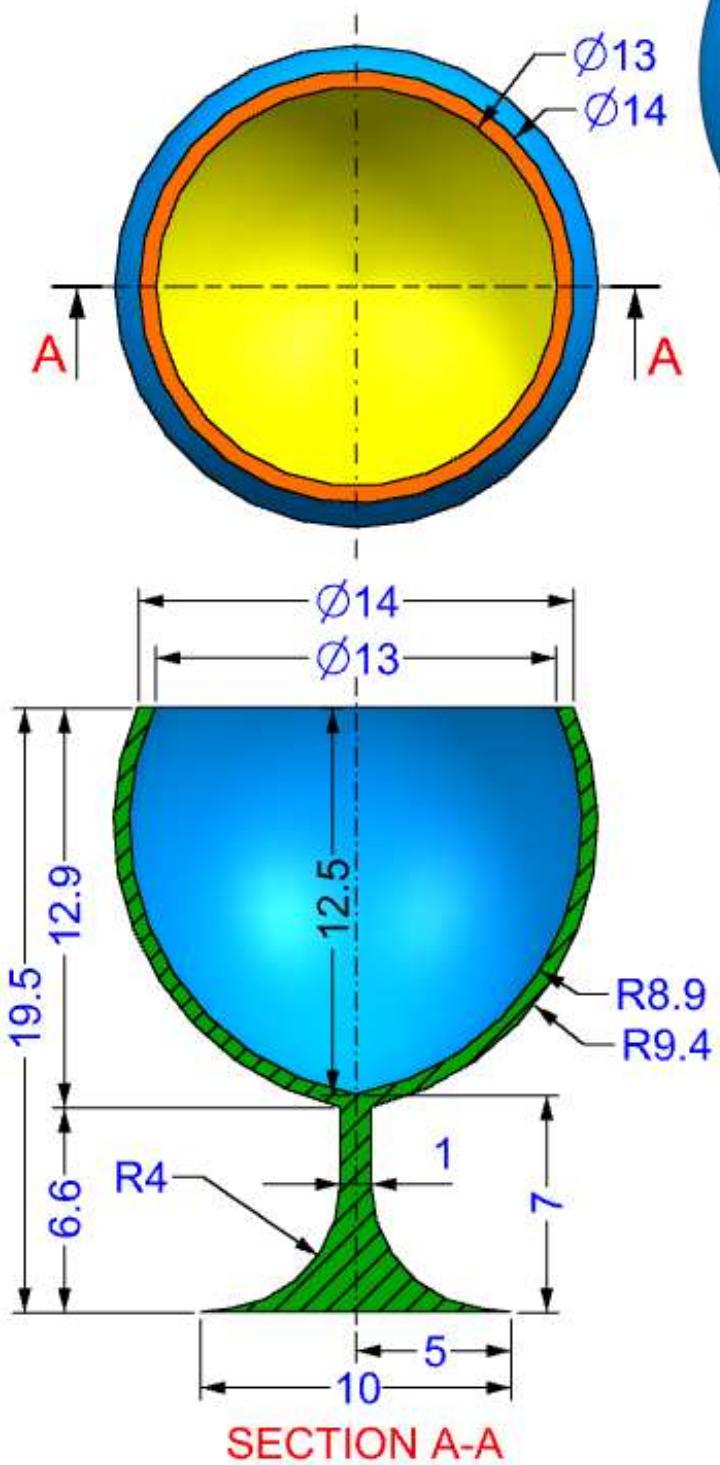


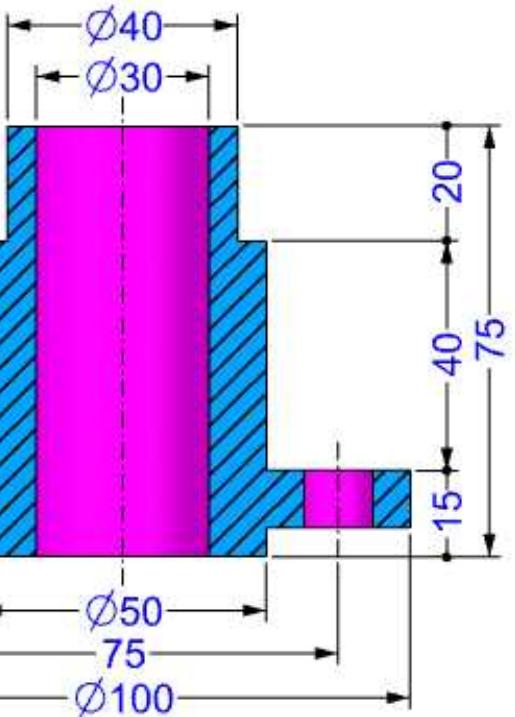
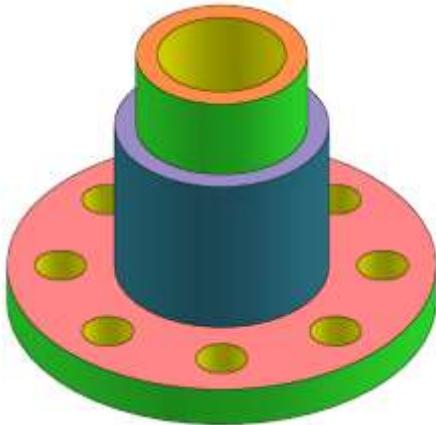
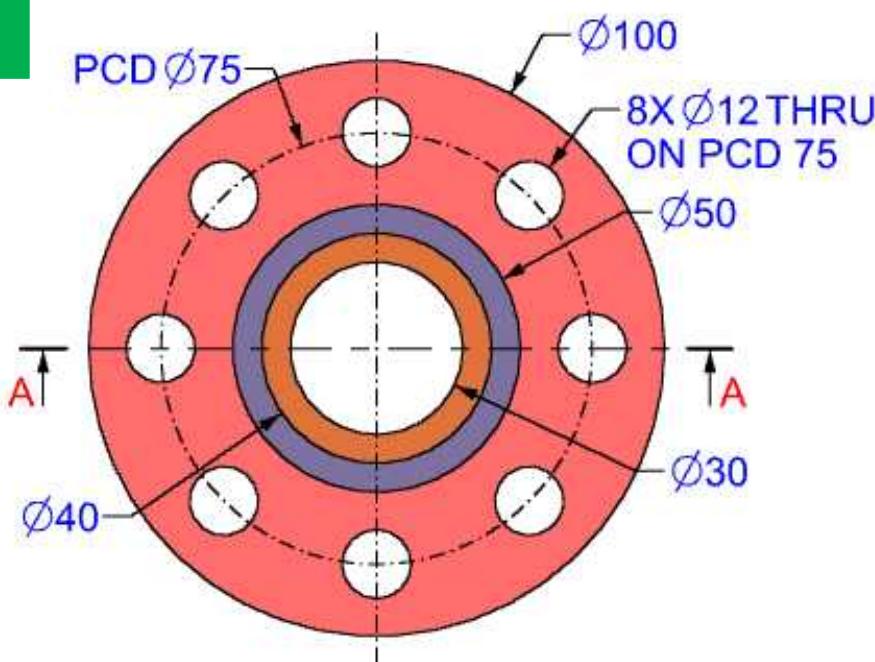
# EXERCISE-123



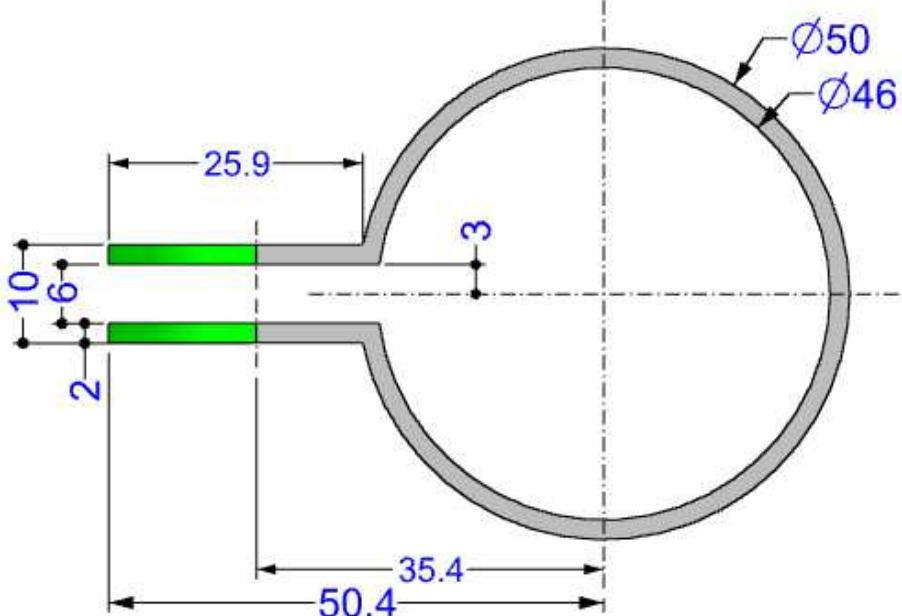
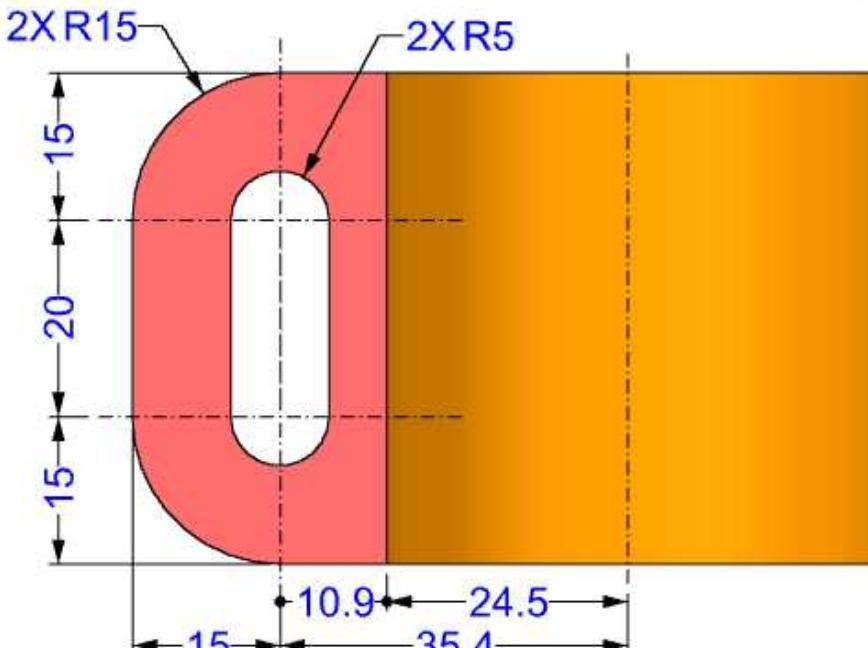
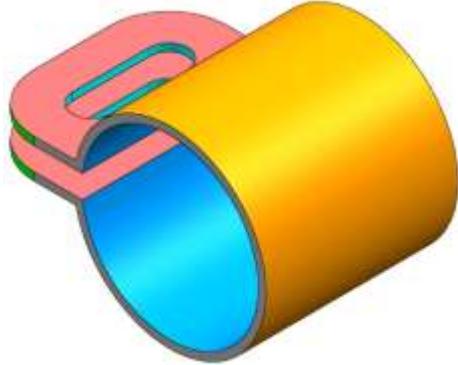
SECTION A-A

# EXERCISE-124

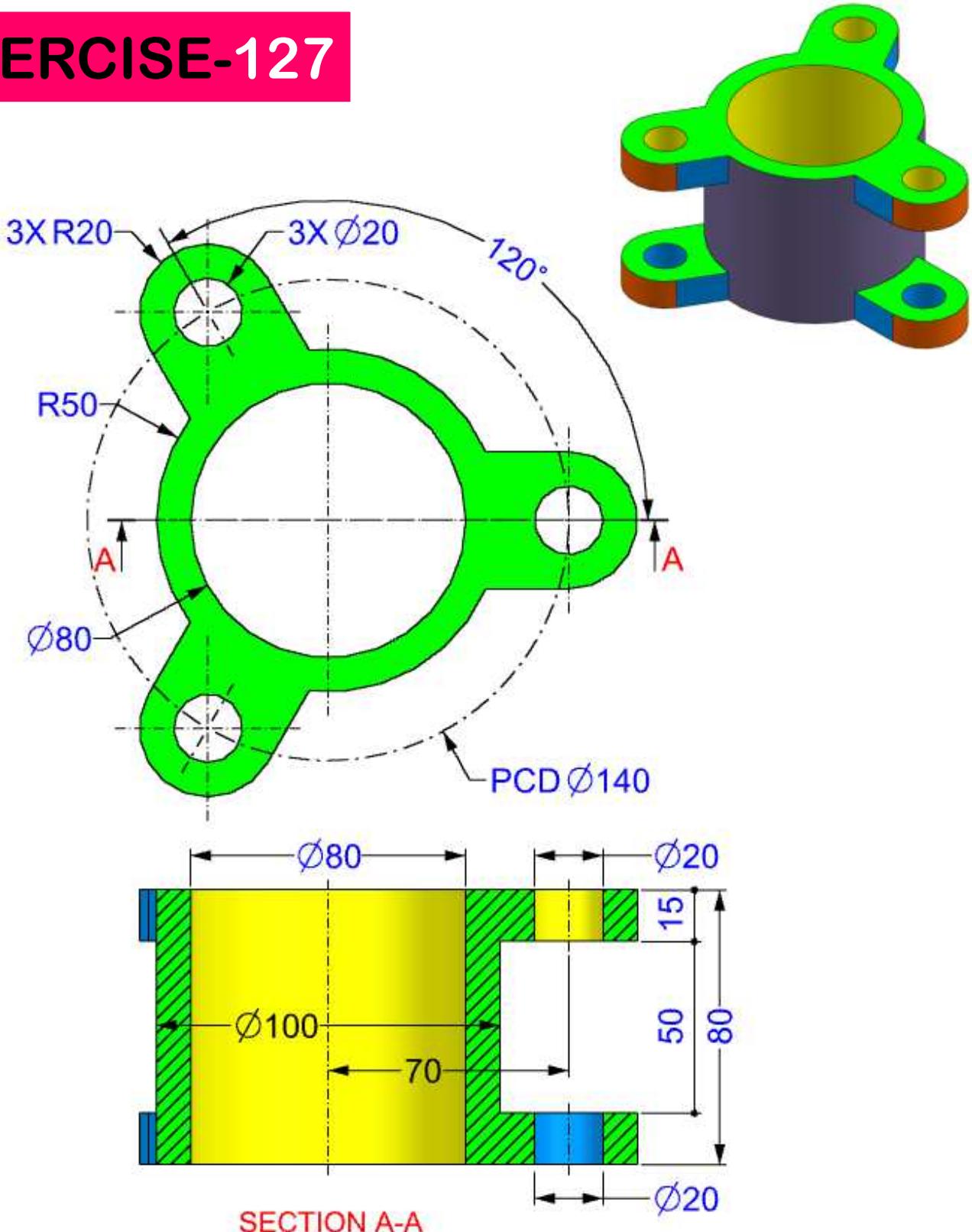


**EXERCISE-125****SECTION A-A**

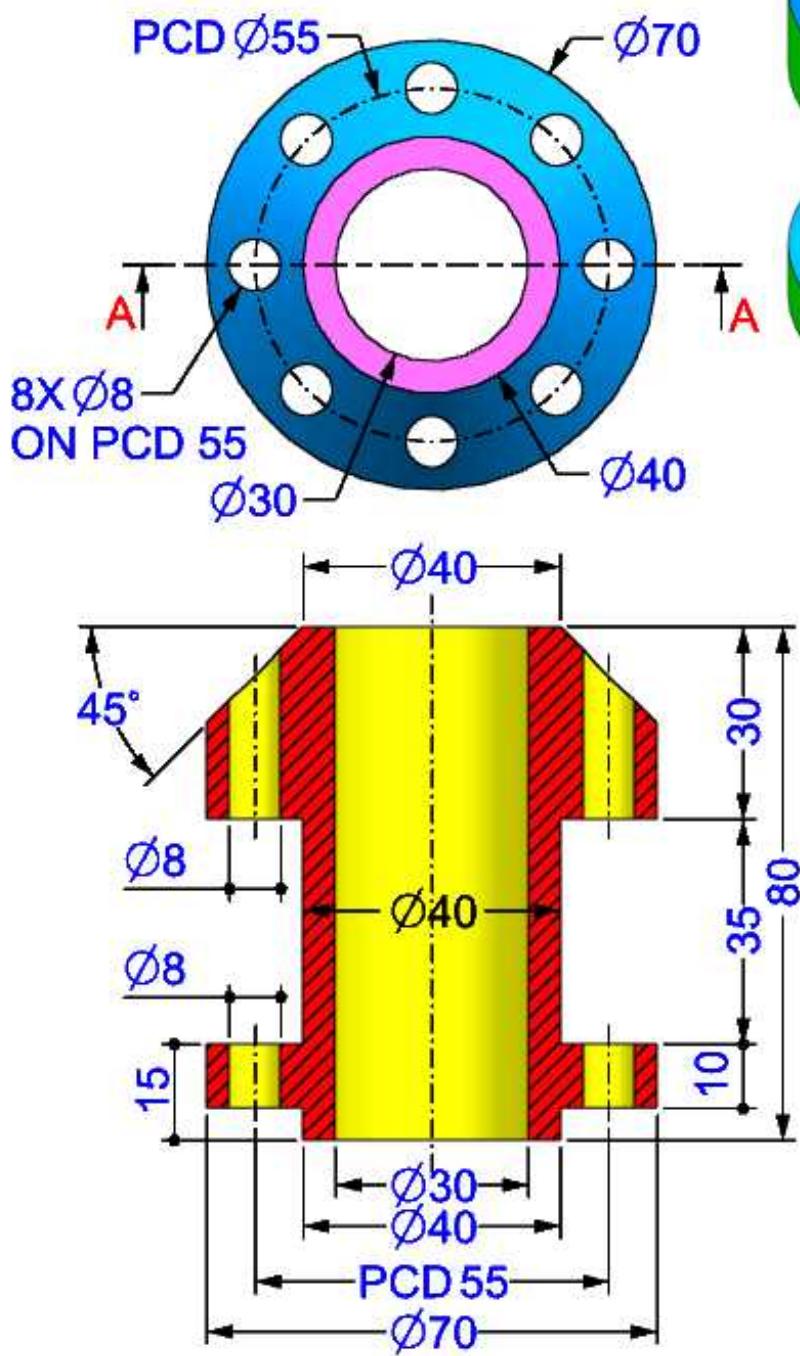
# EXERCISE-126



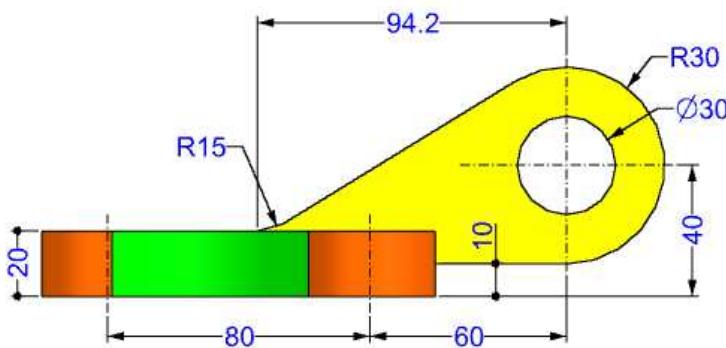
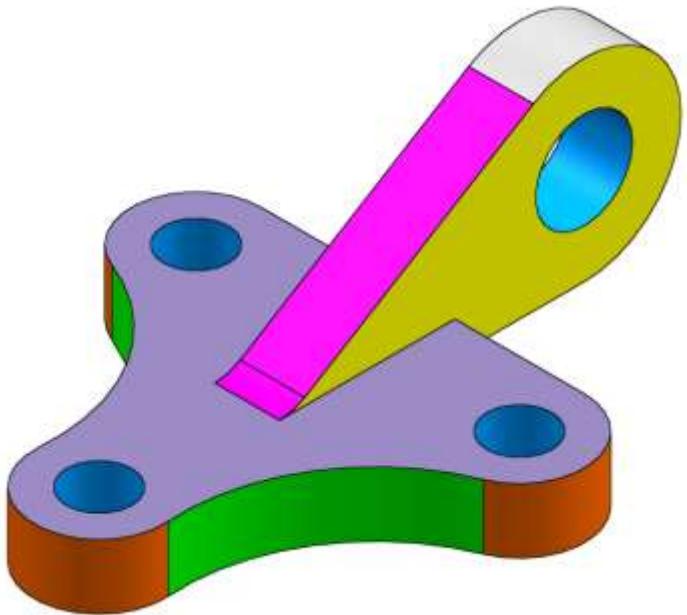
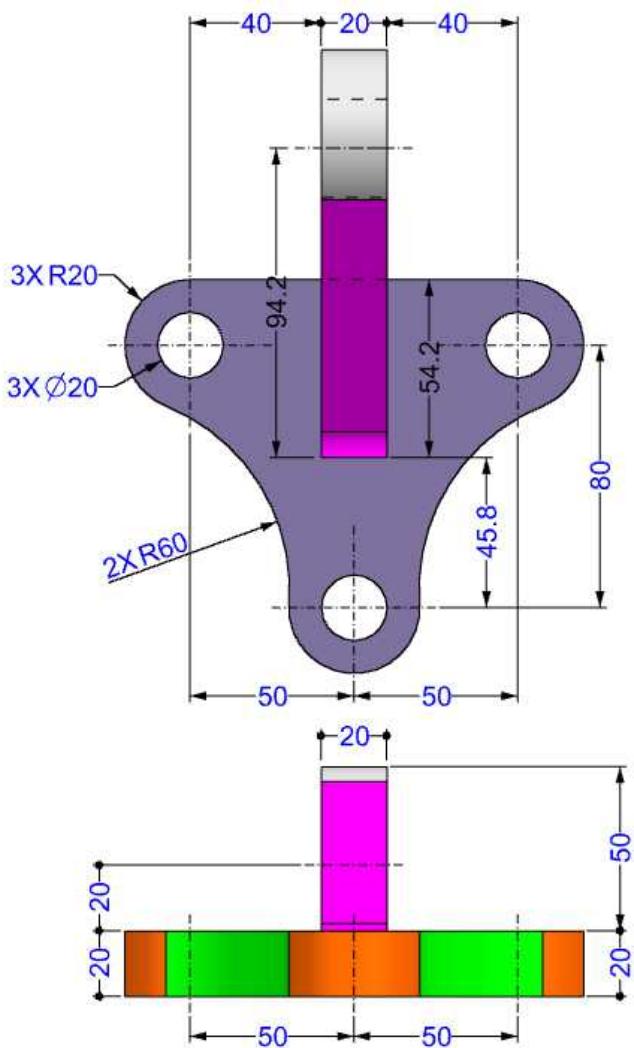
## EXERCISE-127



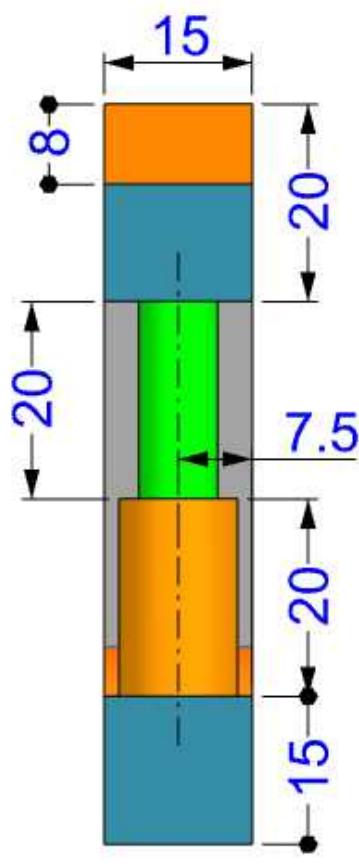
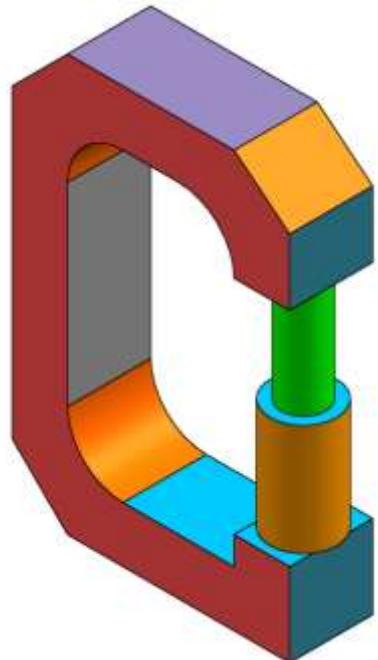
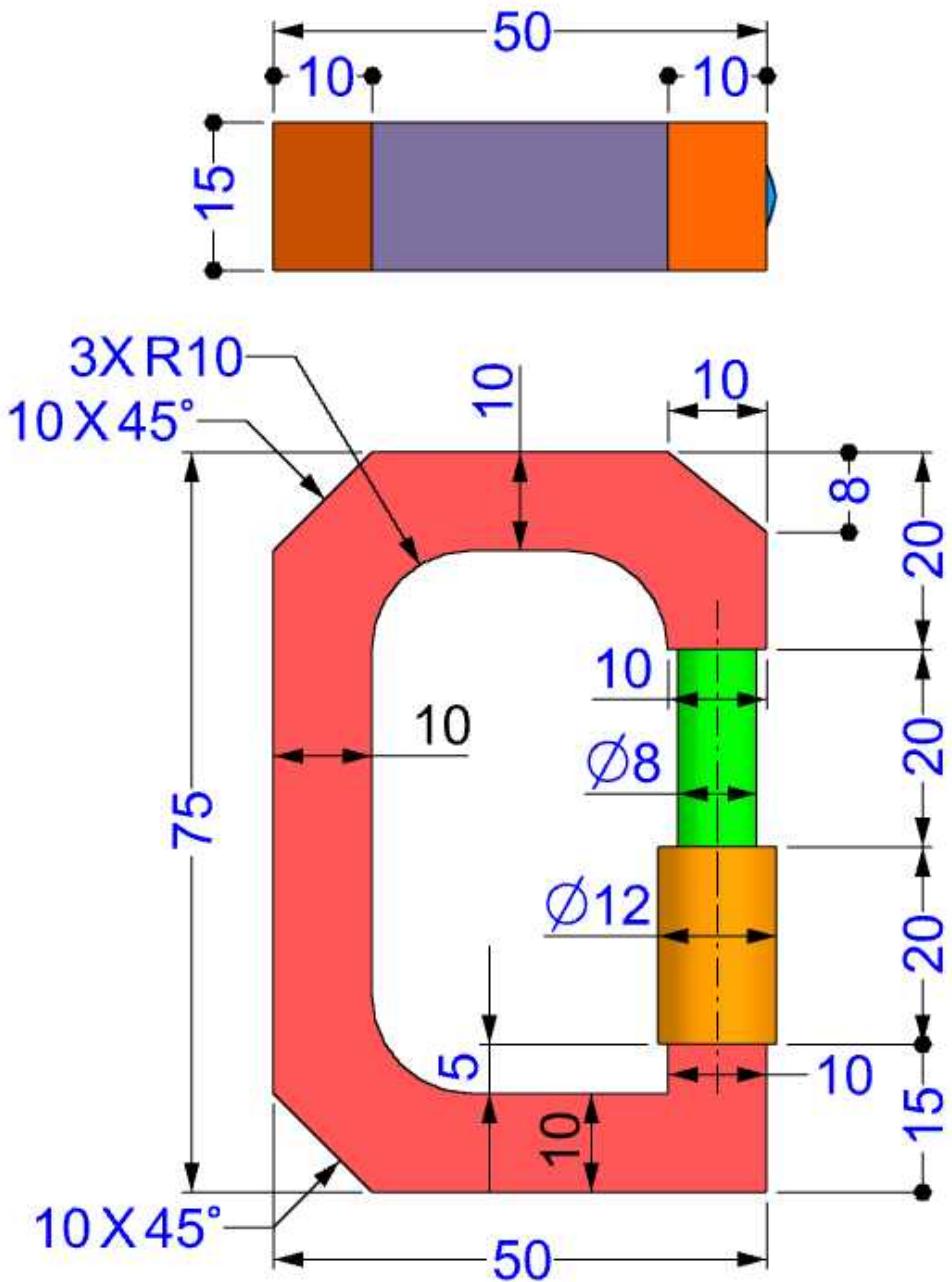
SECTION A-A

**EXERCISE-128****SECTION A-A**

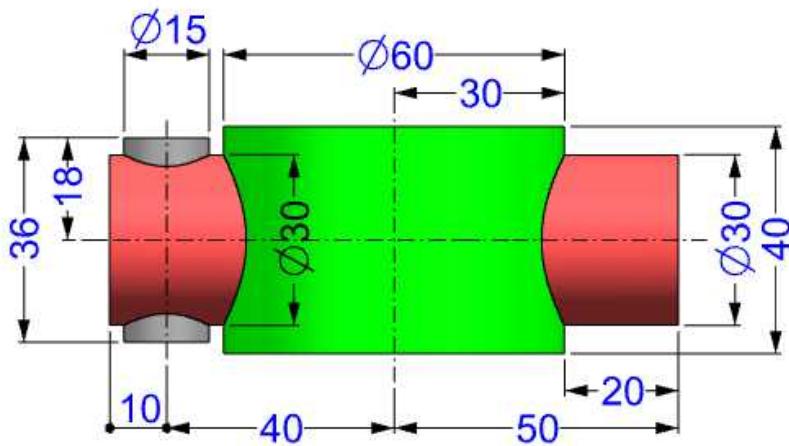
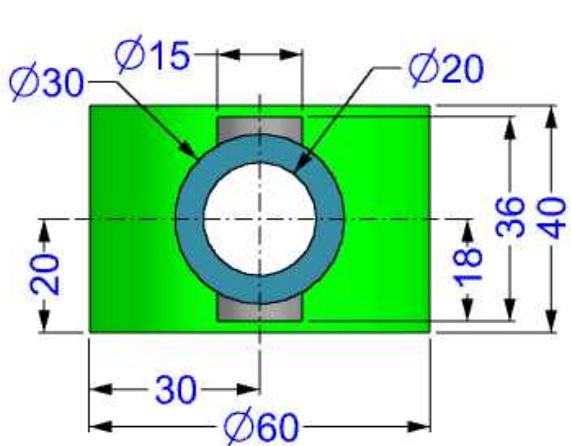
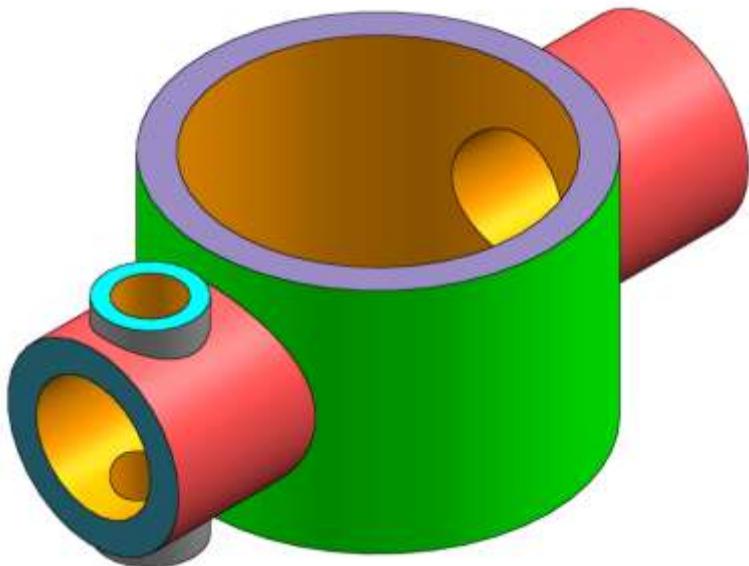
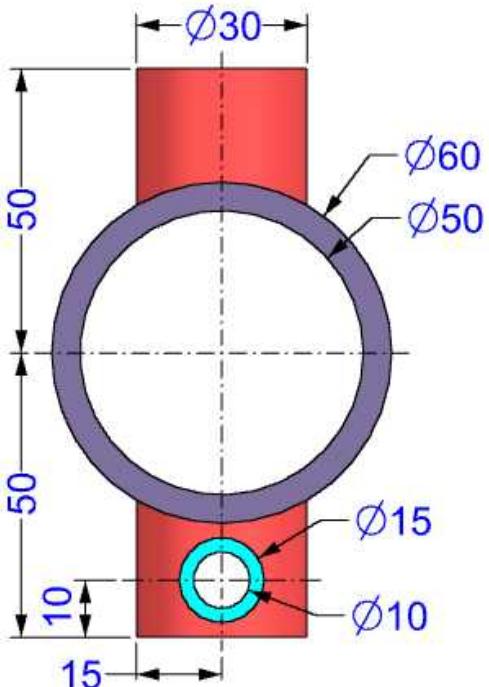
# EXERCISE-129



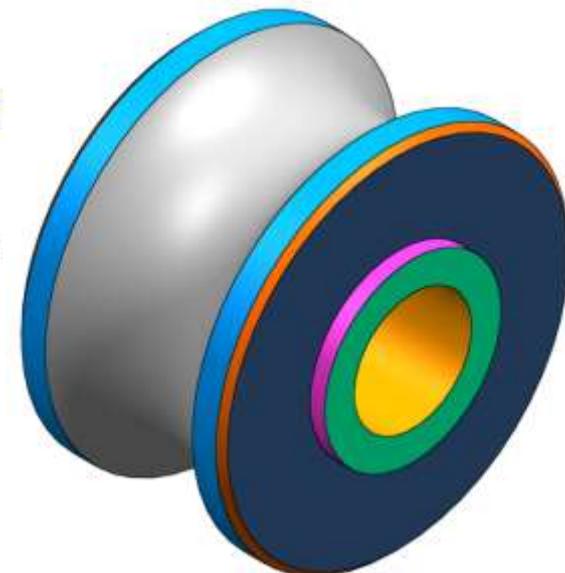
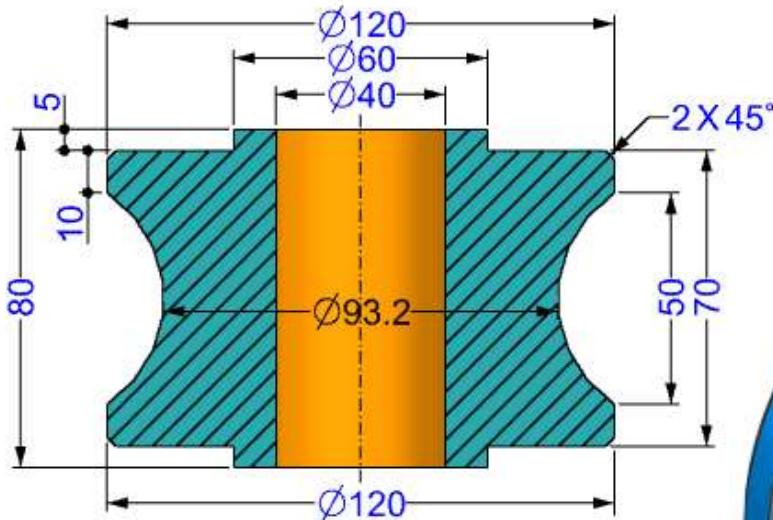
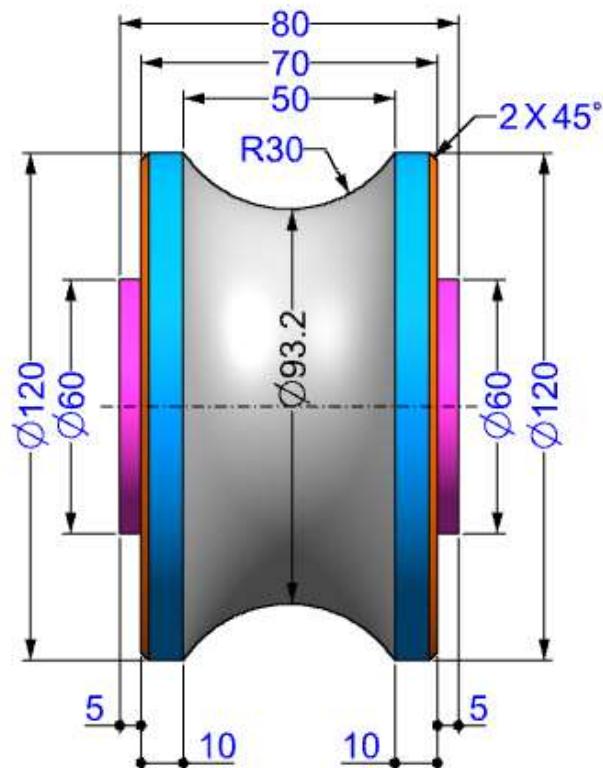
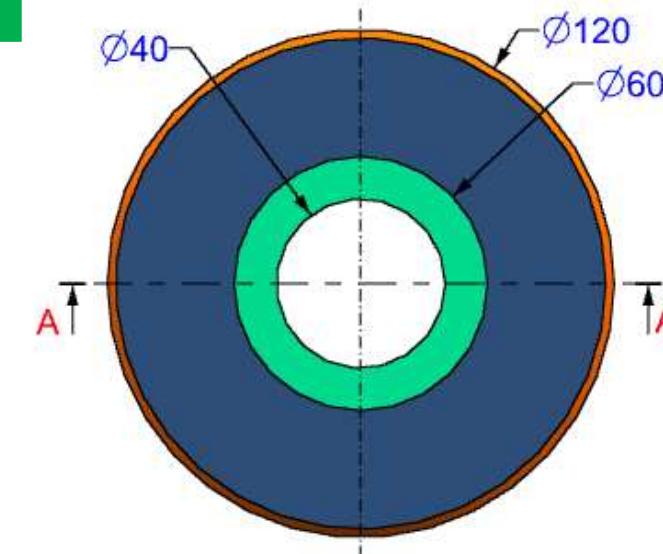
# EXERCISE-130



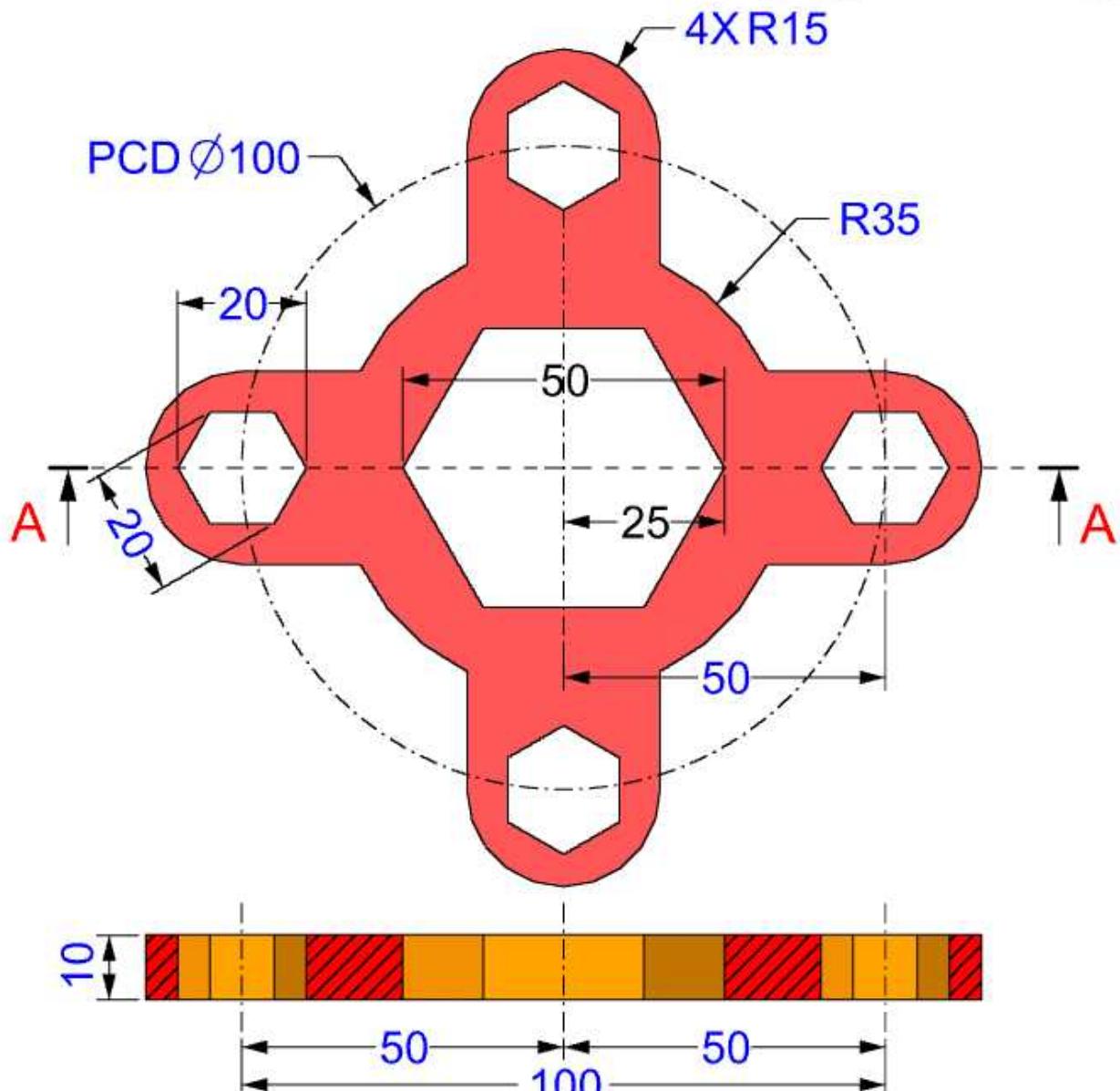
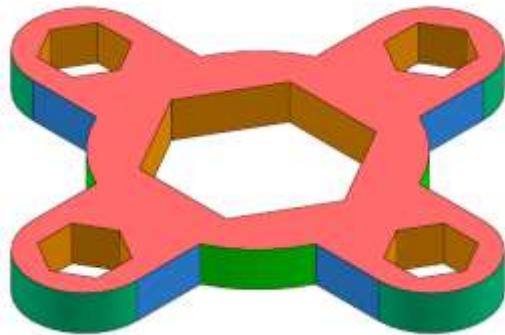
# EXERCISE-131



## EXERCISE-132

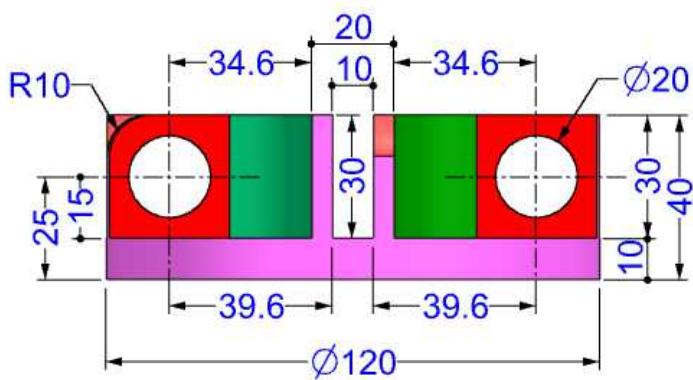
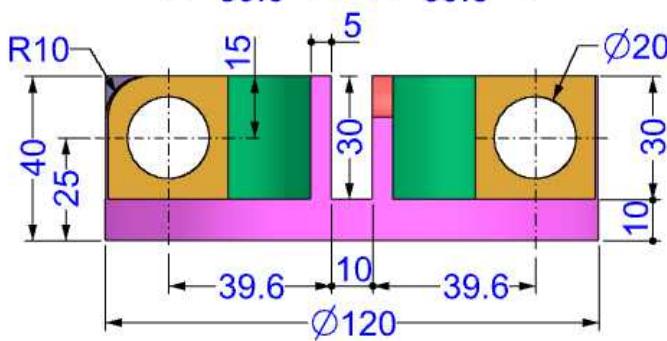
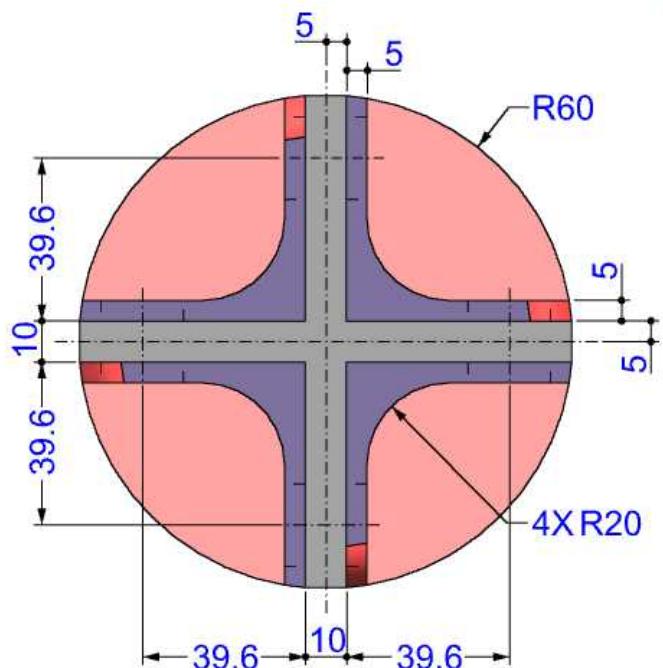
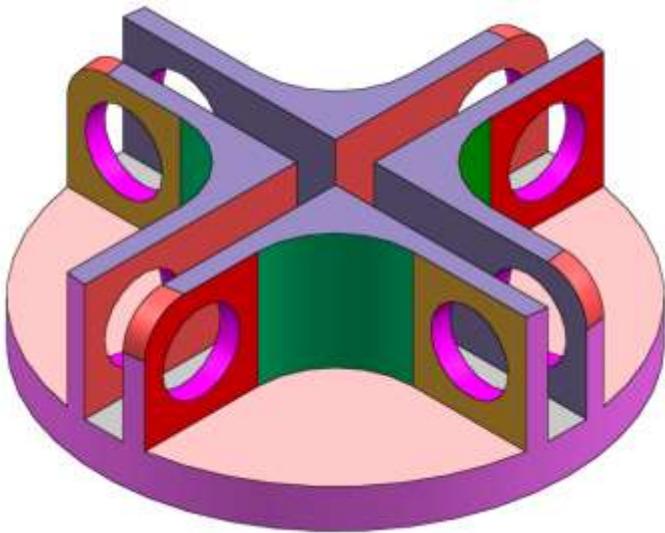


# EXERCISE-133

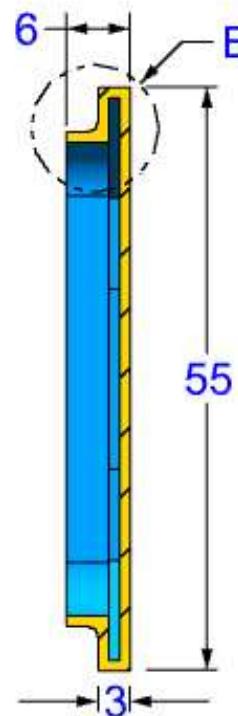
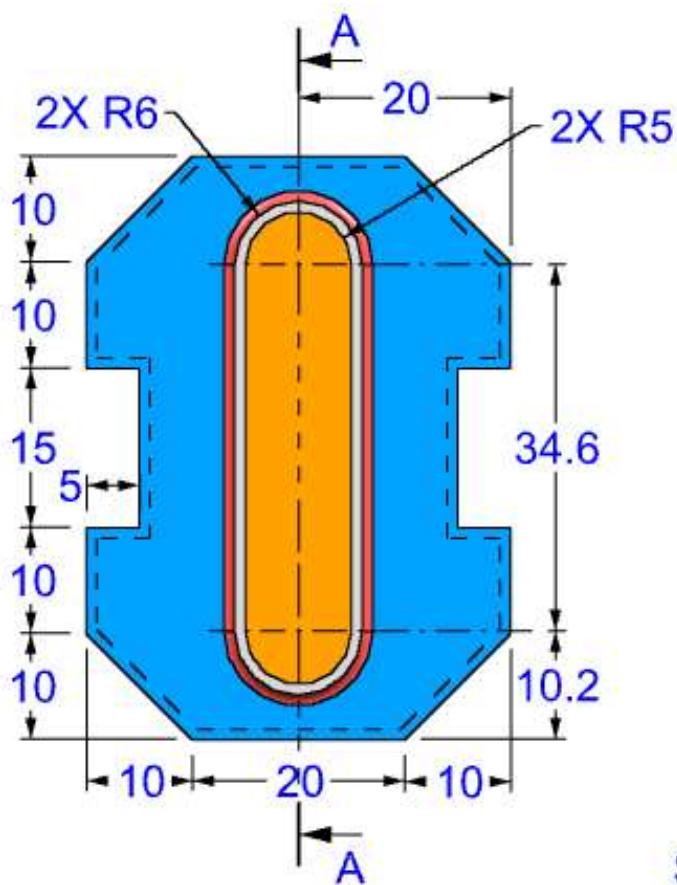


SECTION A-A

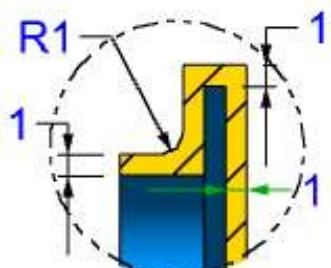
# **EXERCISE-134**



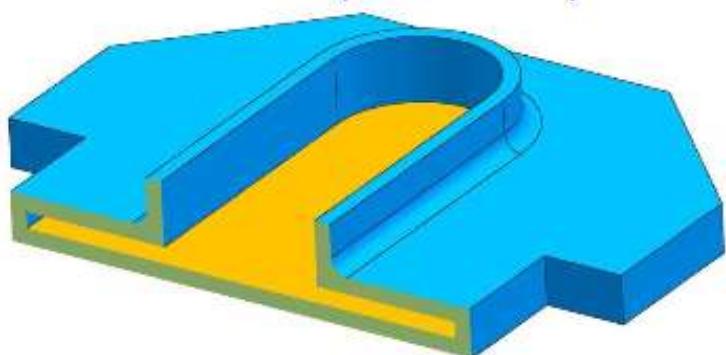
# EXERCISE-135



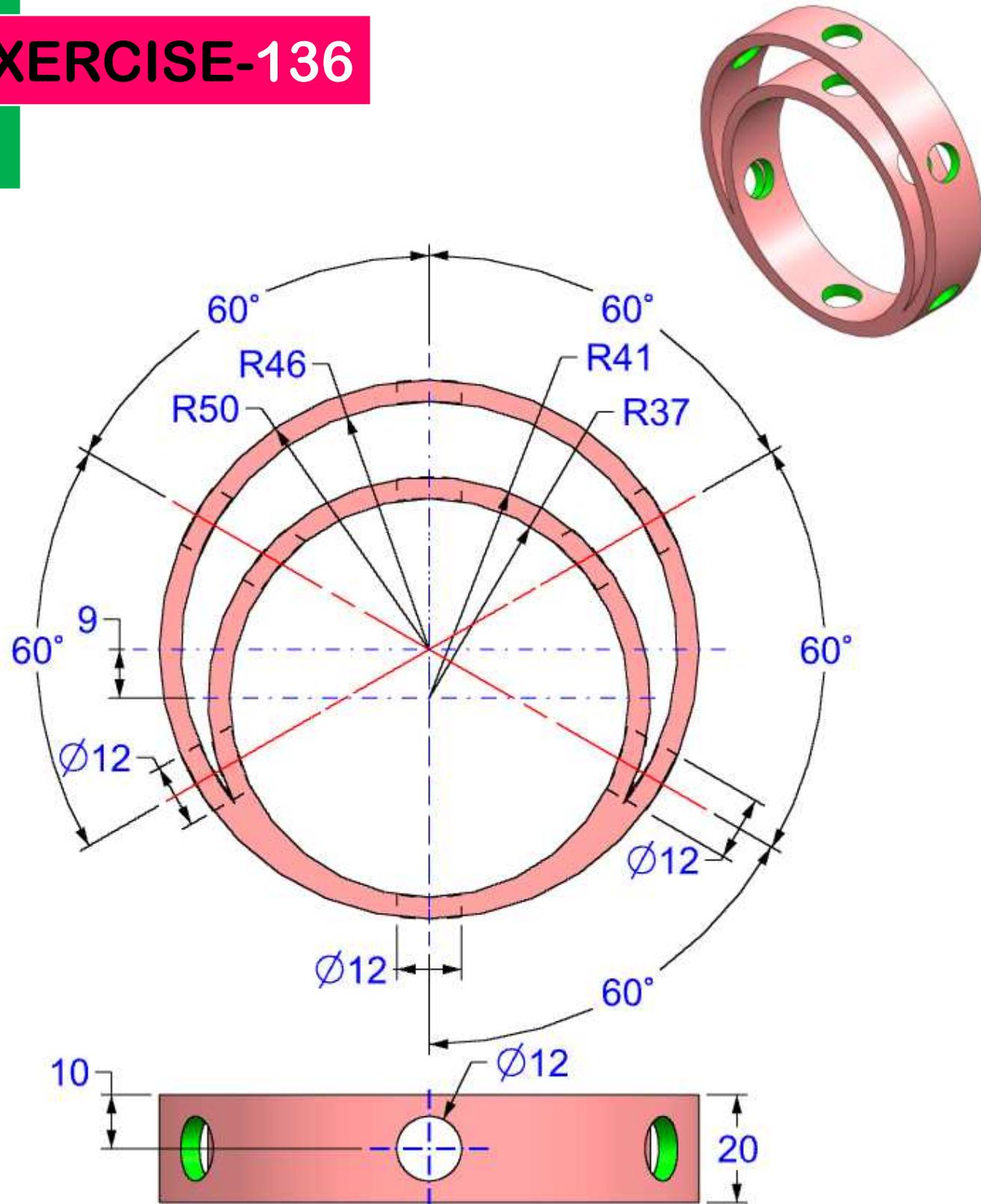
SECTION A-A  
(SCALE 1:1)



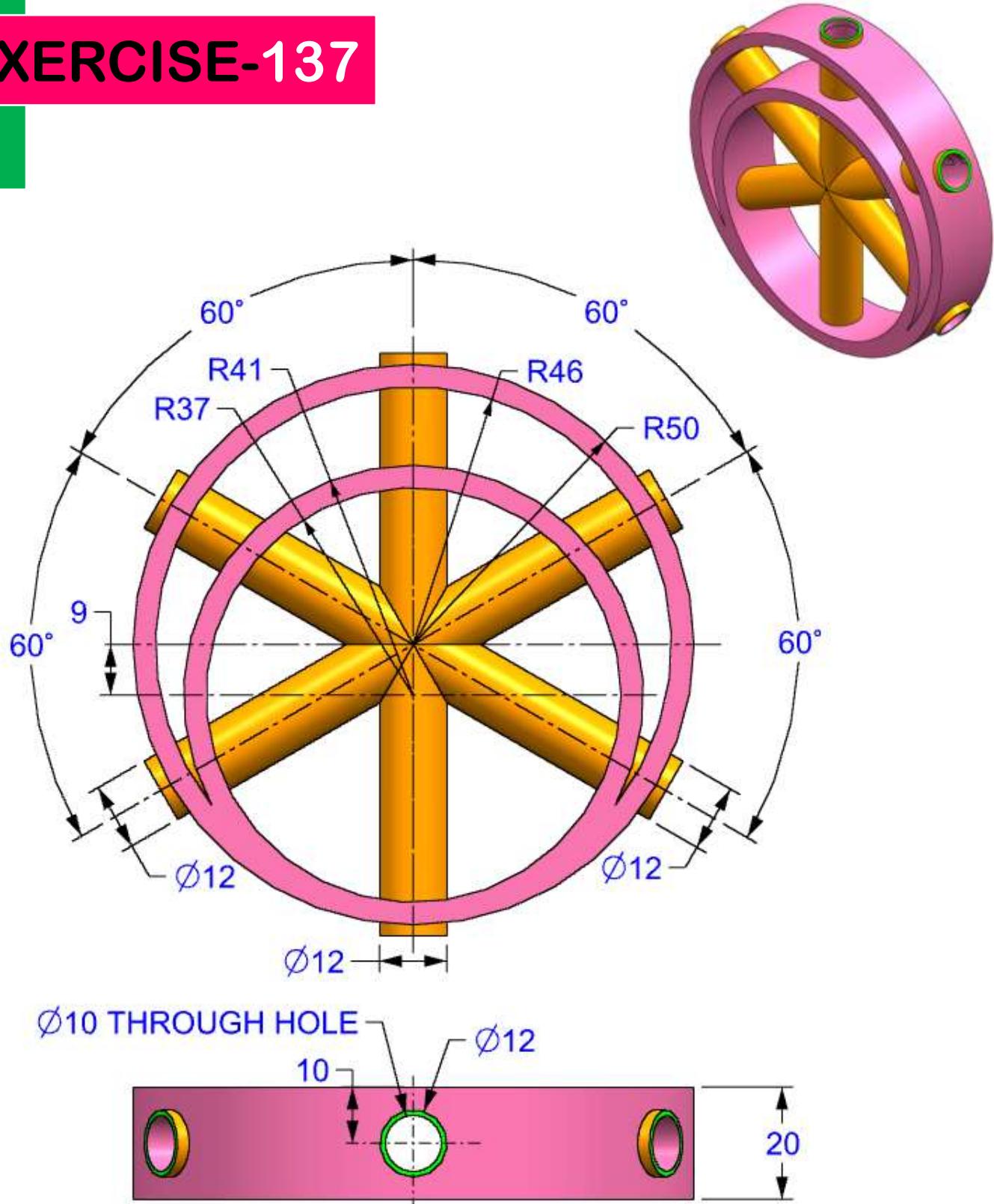
DETAIL B  
(SCALE 2:1)



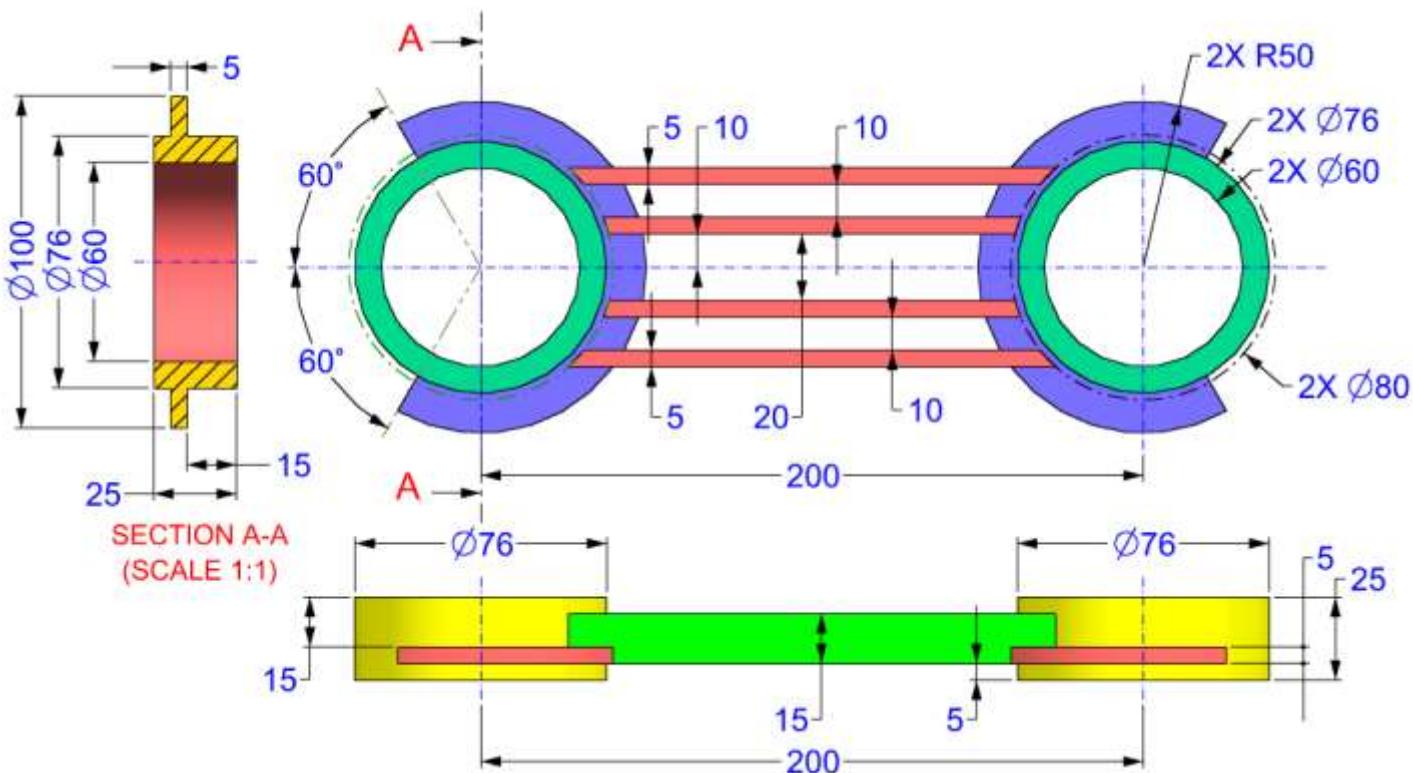
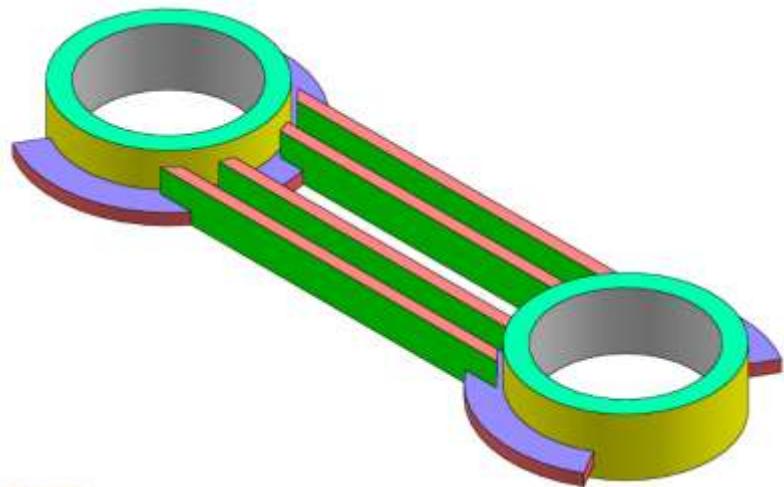
SHELL THICKNESS = 1MM  
ALL INSIDE WALL THICKNESS

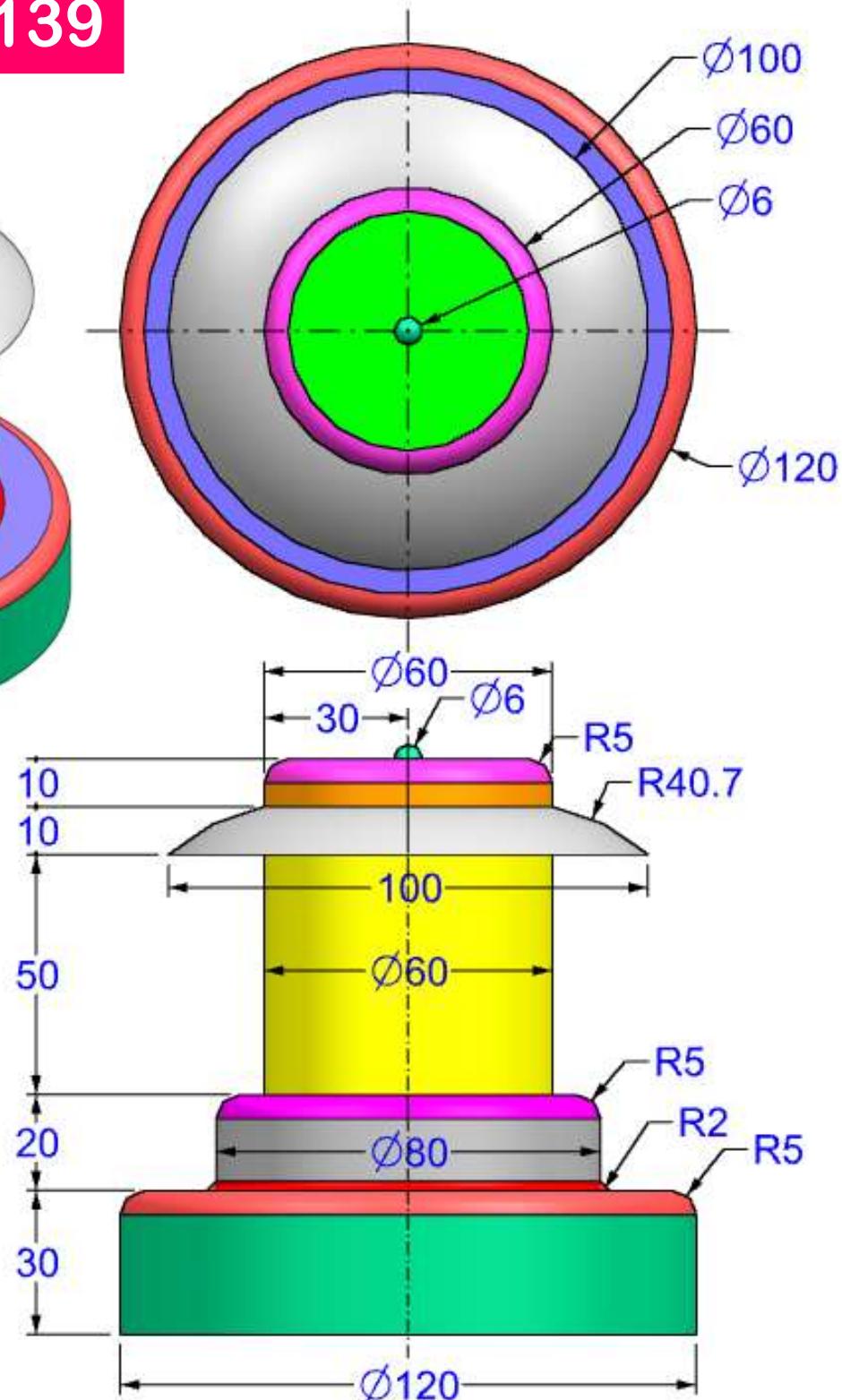
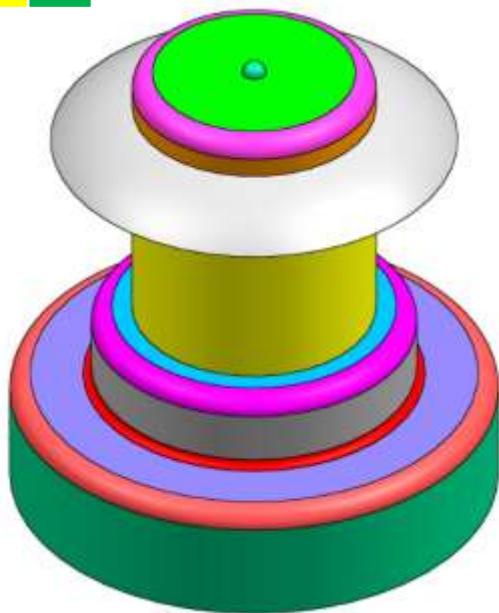
**EXERCISE-136**

# EXERCISE-137

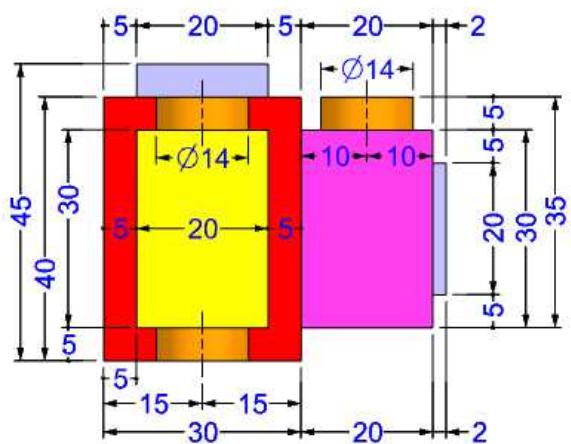
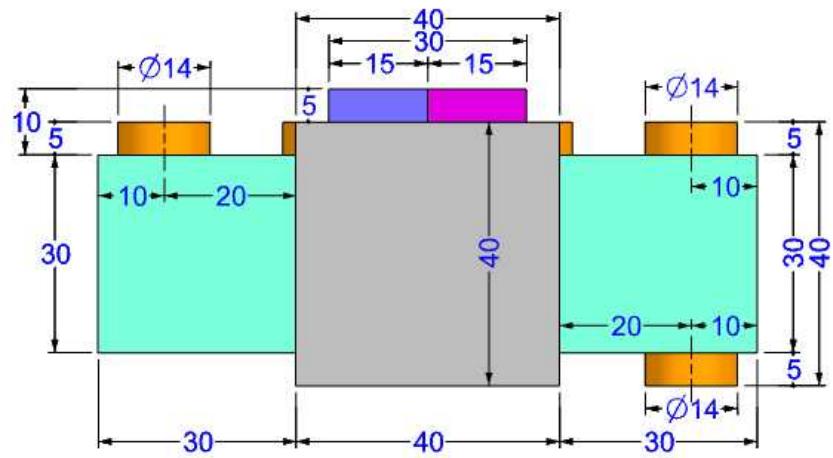
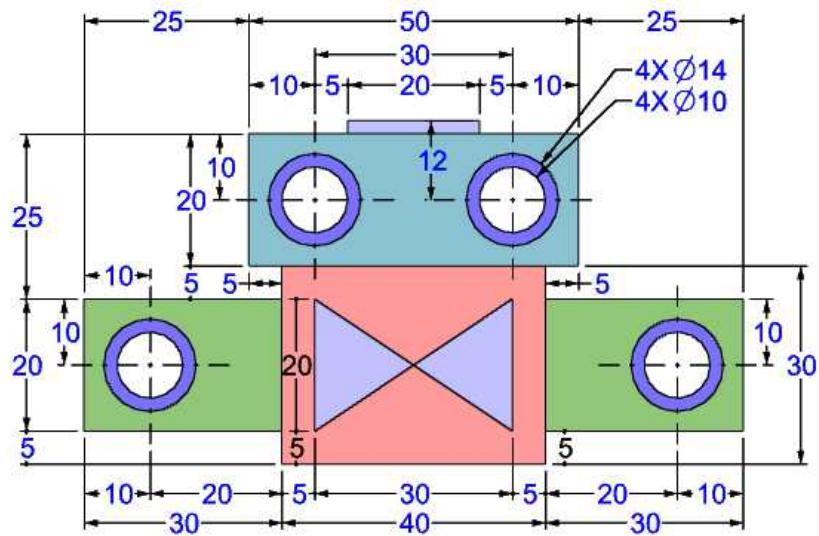
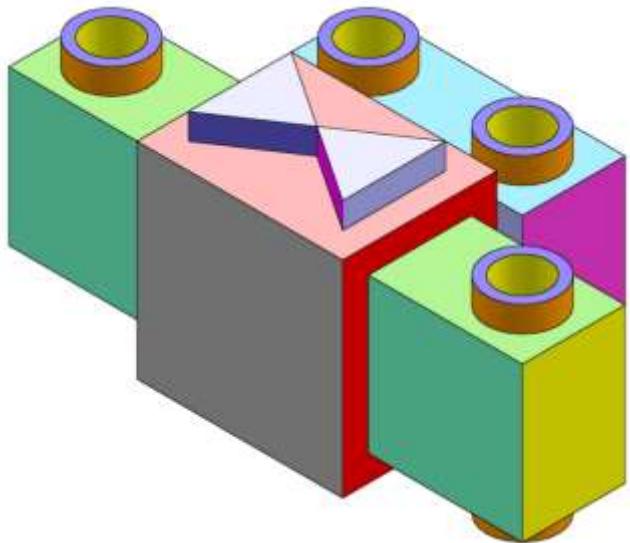


# EXERCISE-138

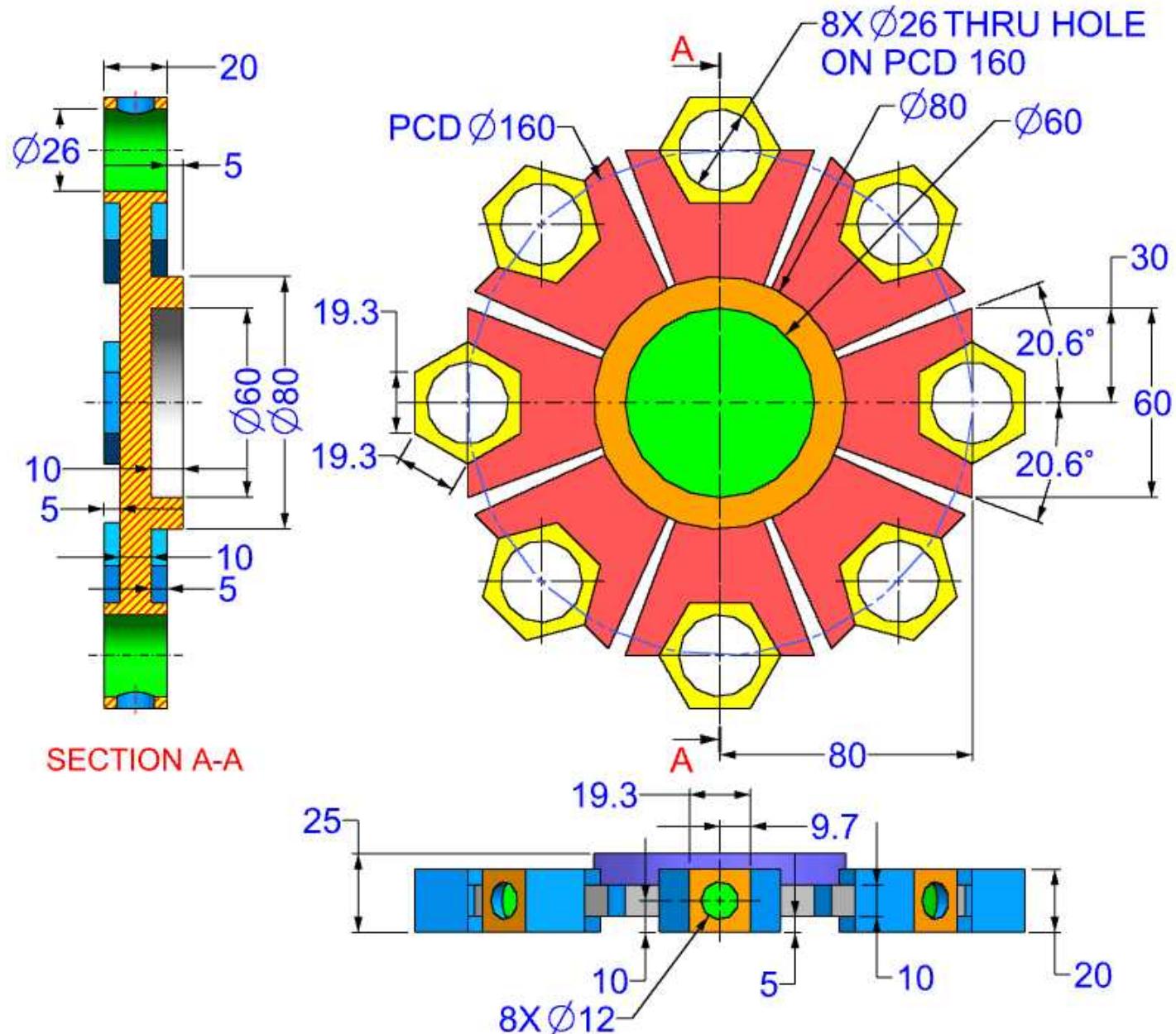
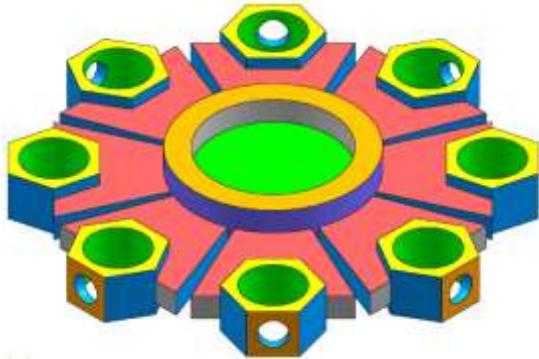


**EXERCISE-139**

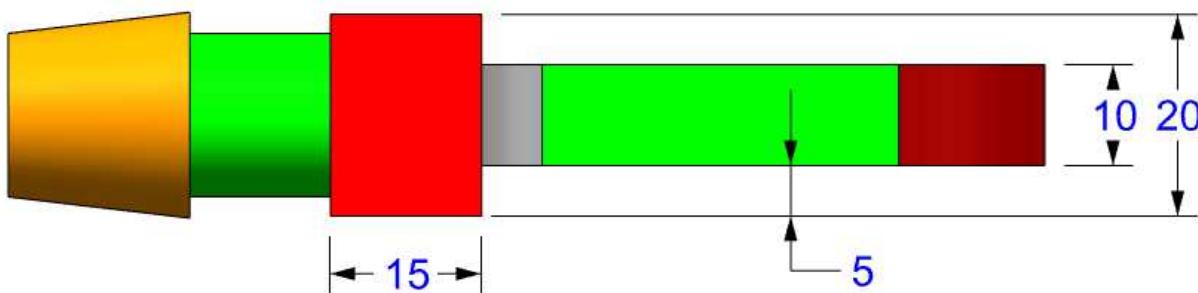
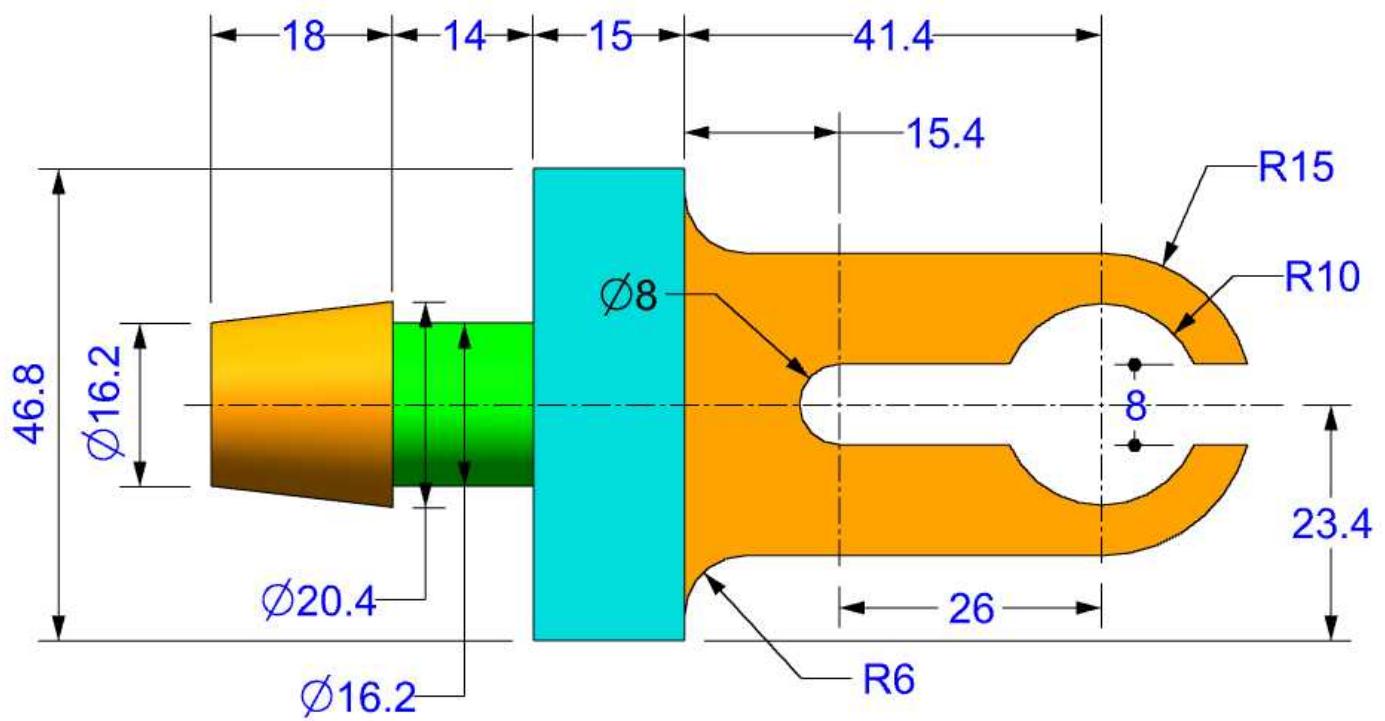
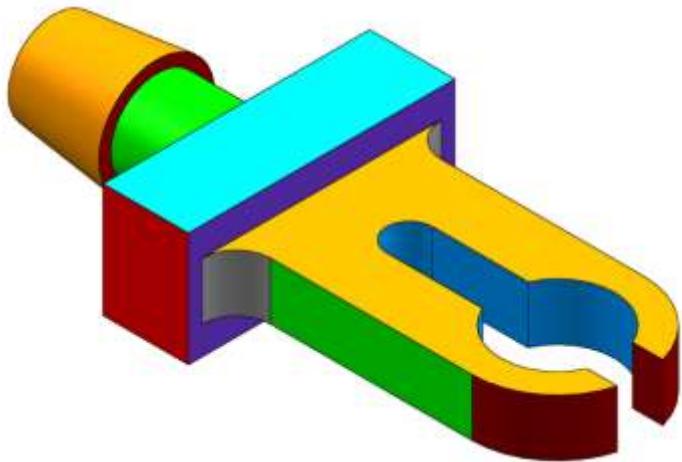
# EXERCISE-140



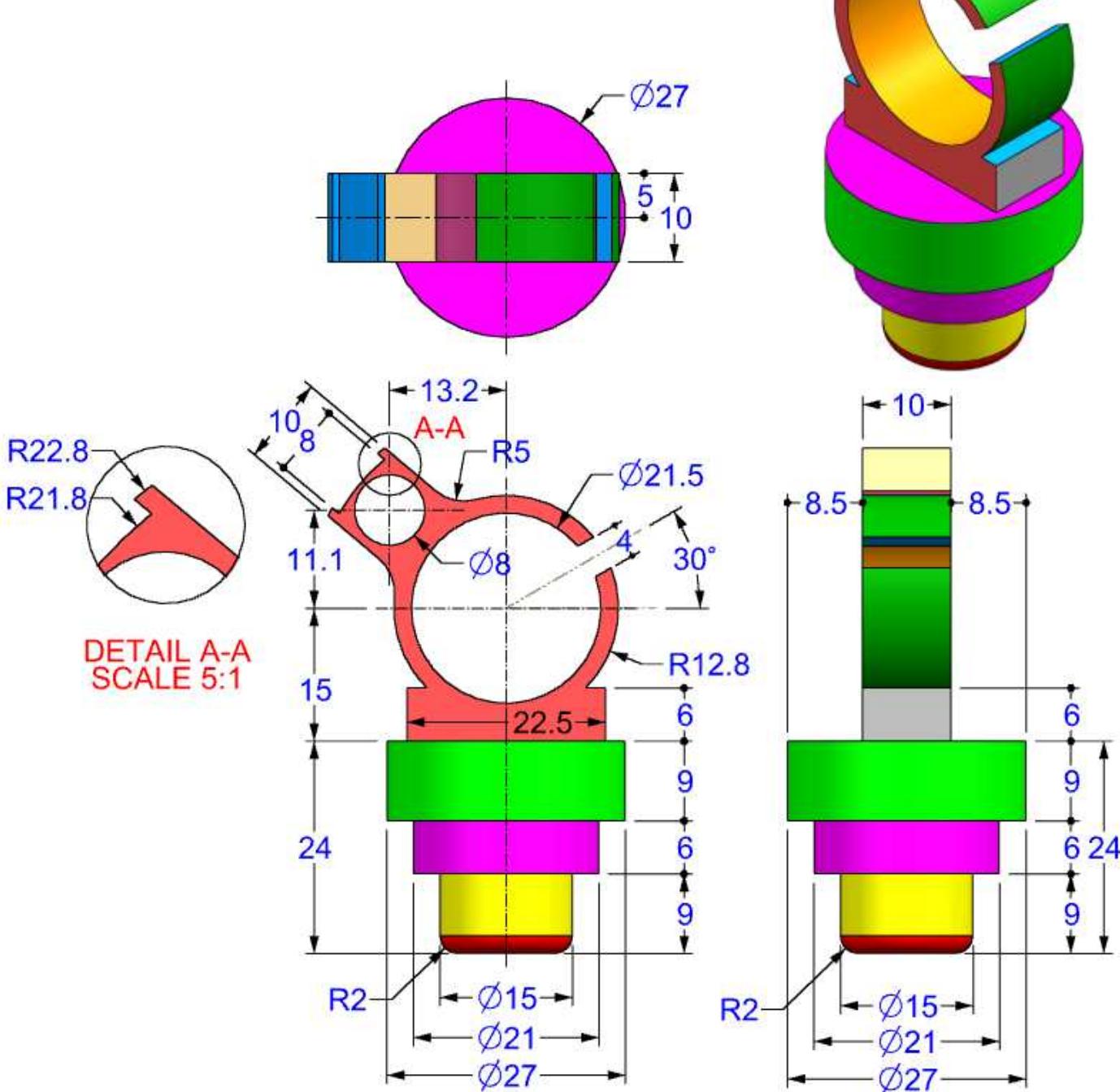
# **EXERCISE-141**



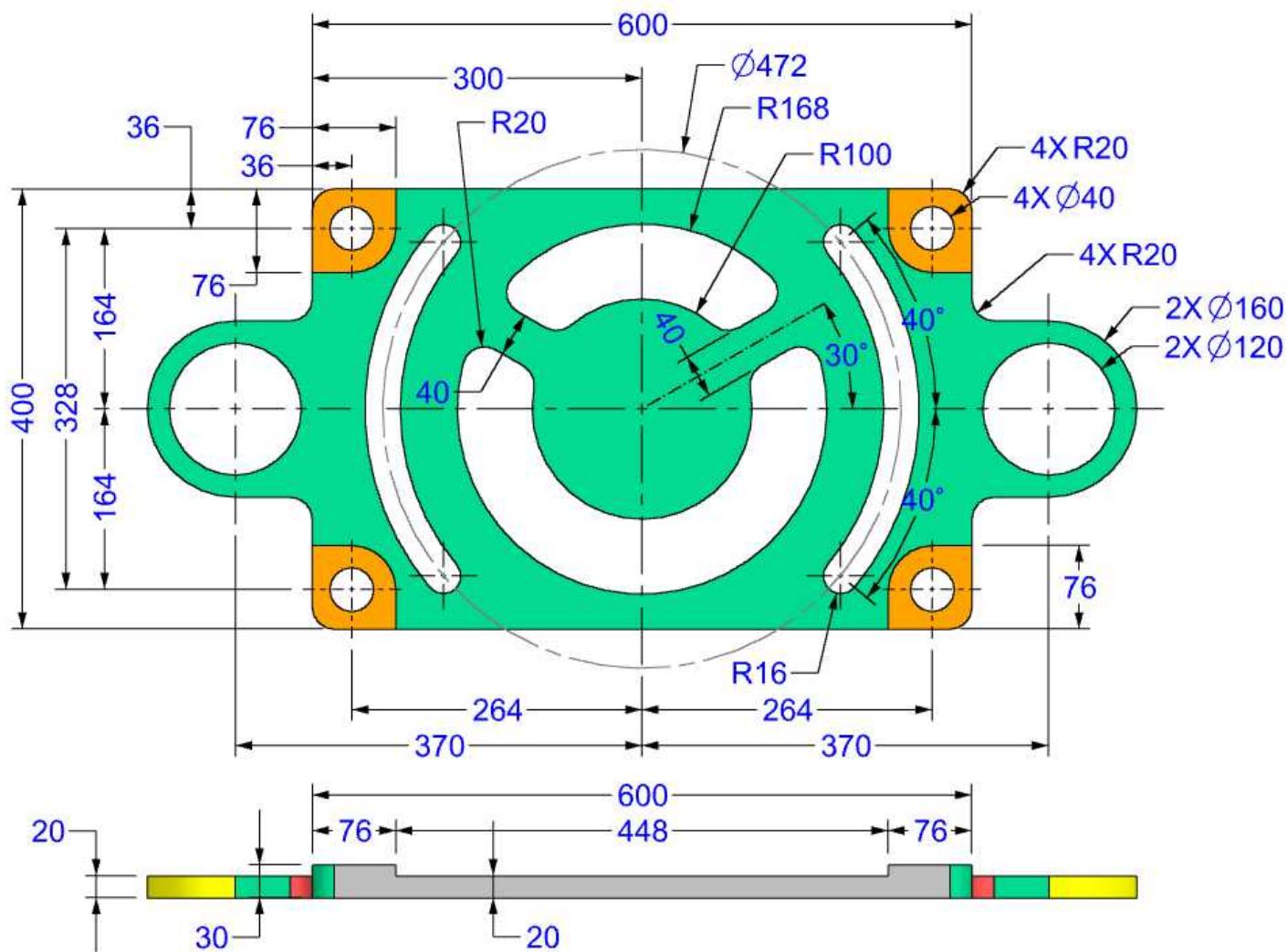
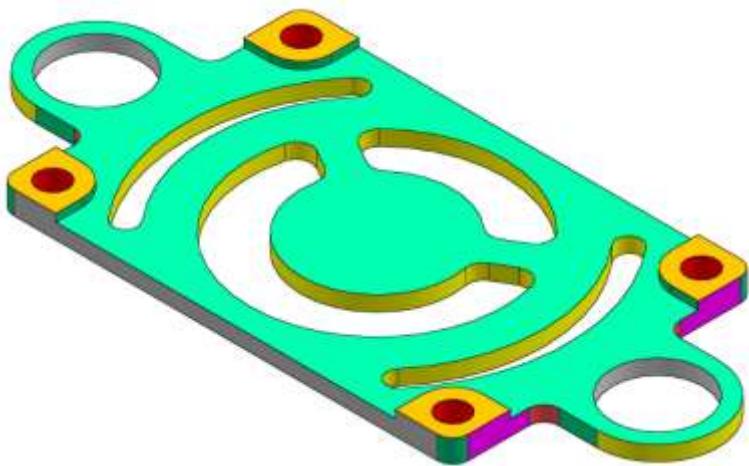
# EXERCISE-142



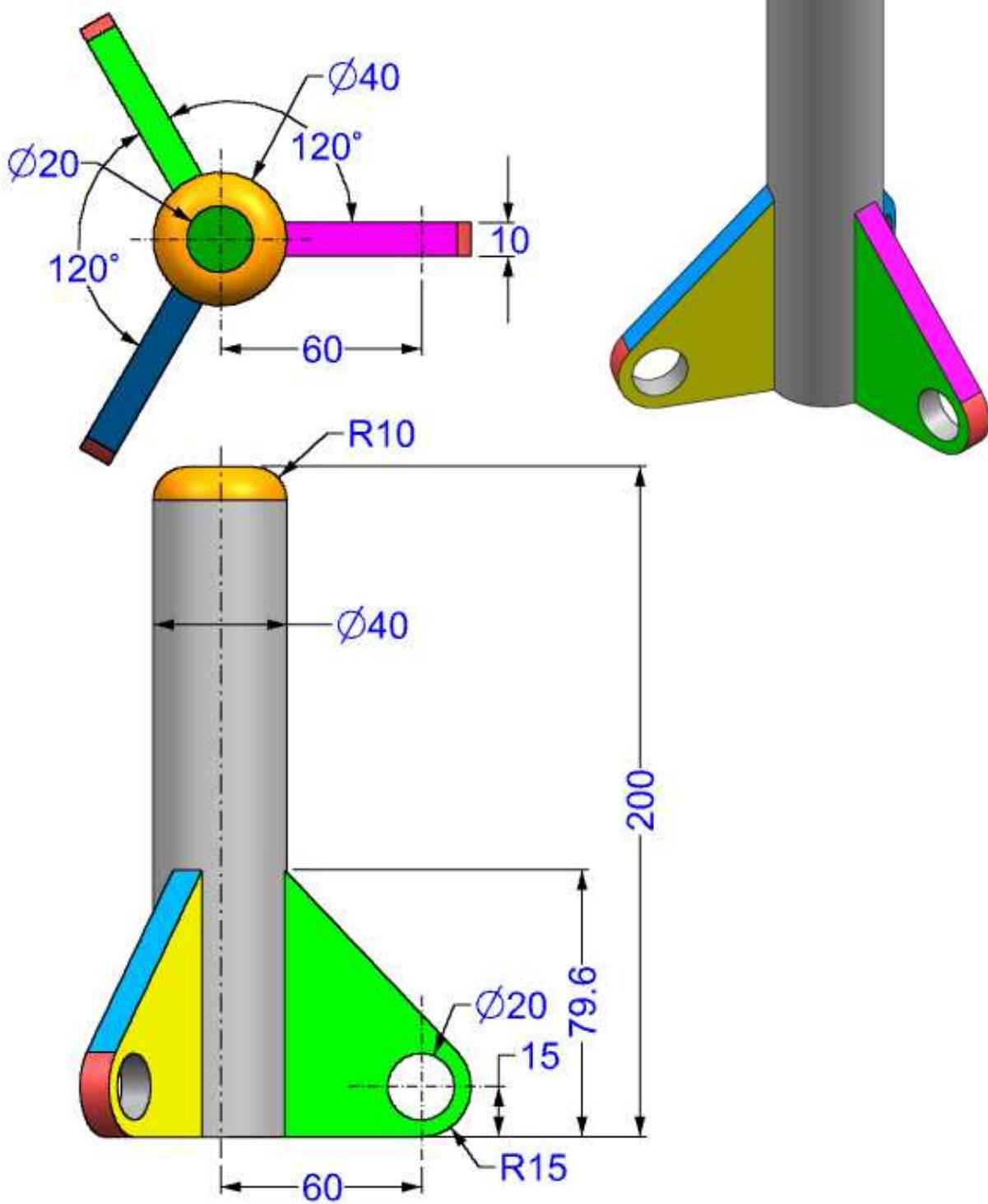
# EXERCISE-143



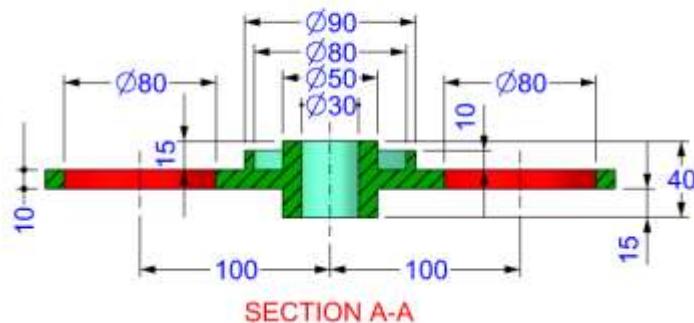
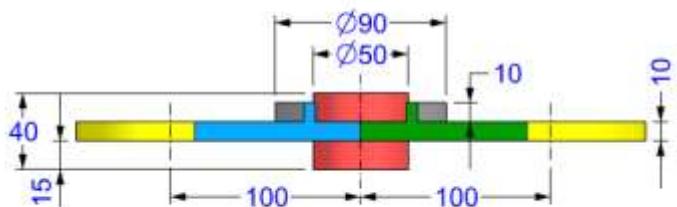
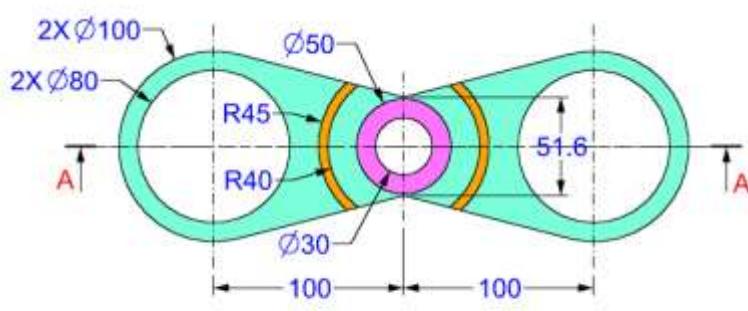
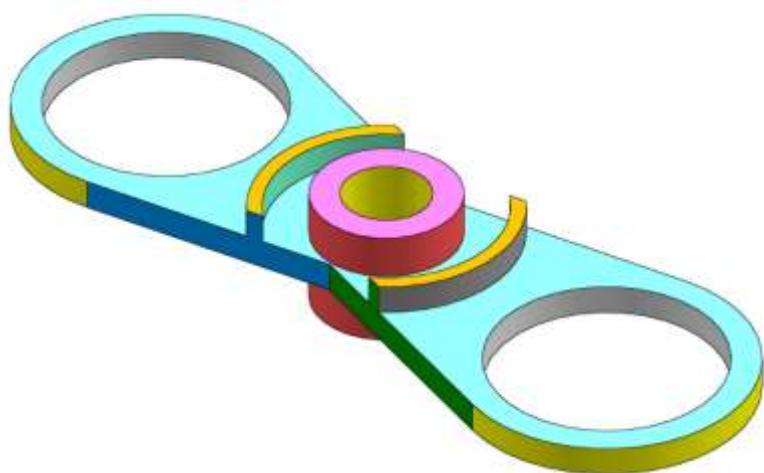
## EXERCISE-144



# EXERCISE-145

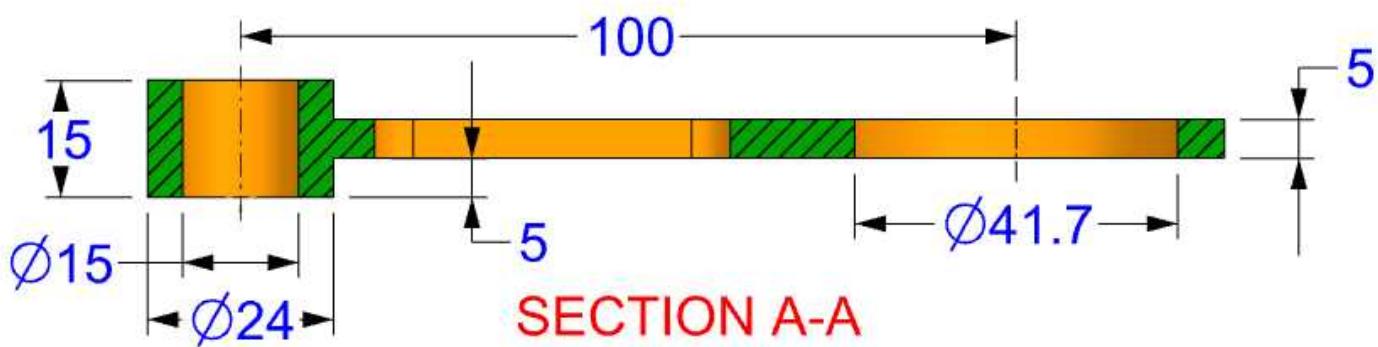
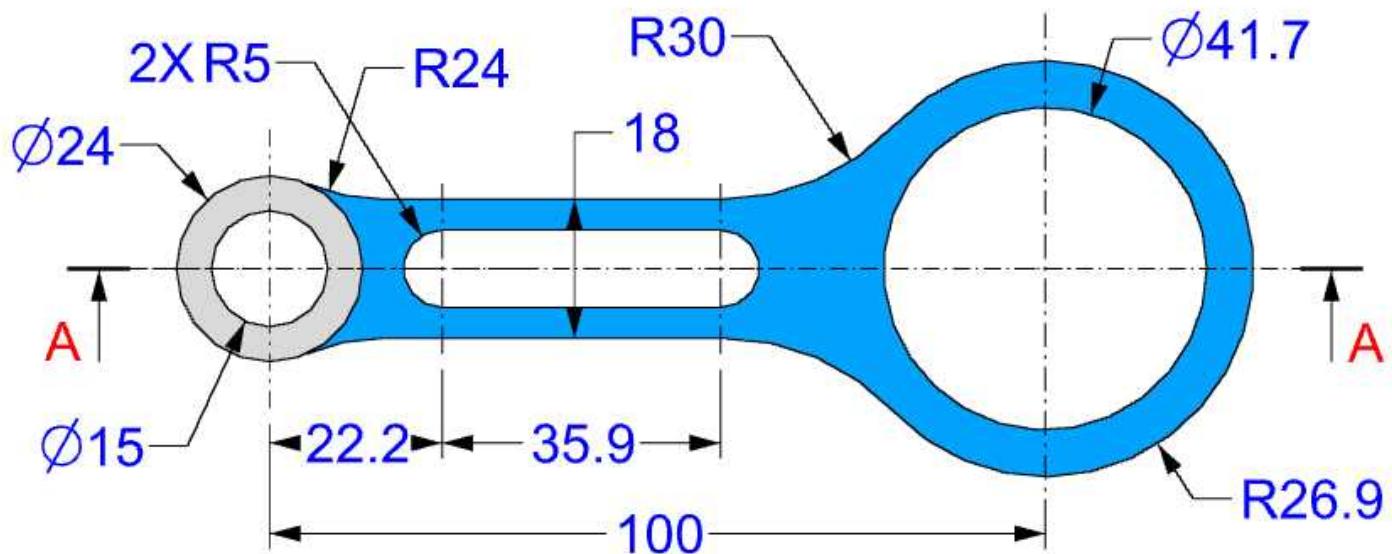
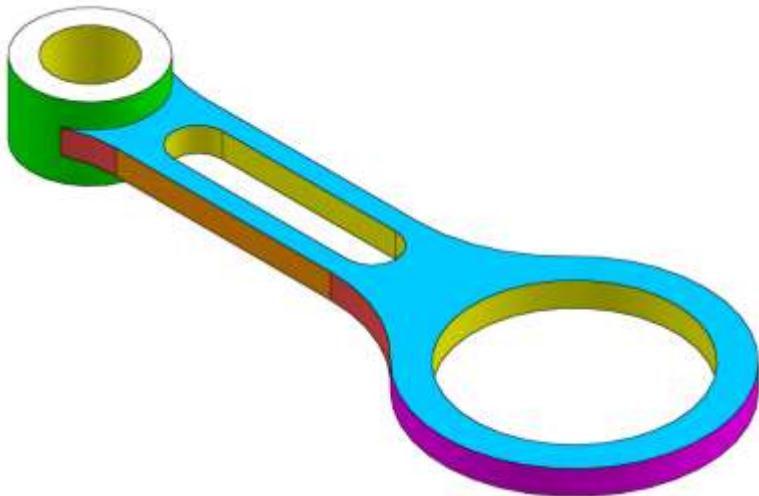


# EXERCISE-146

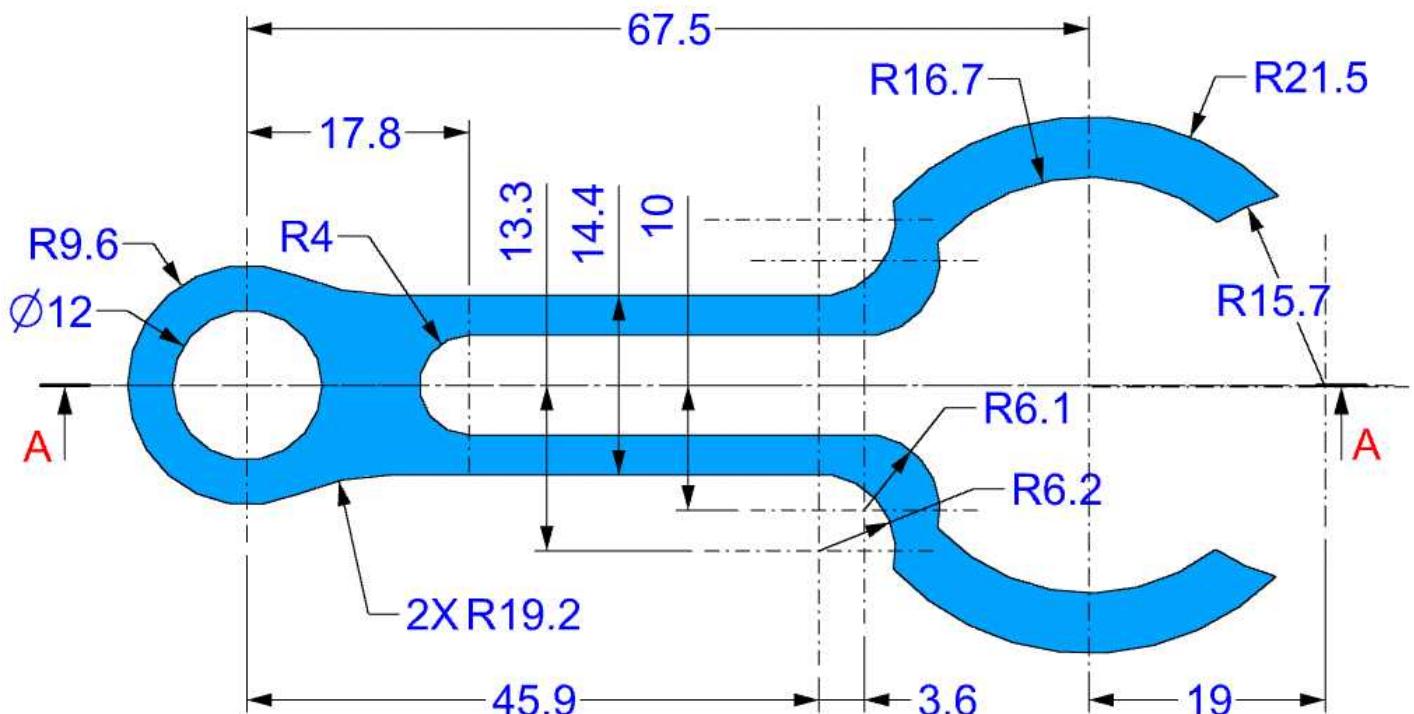
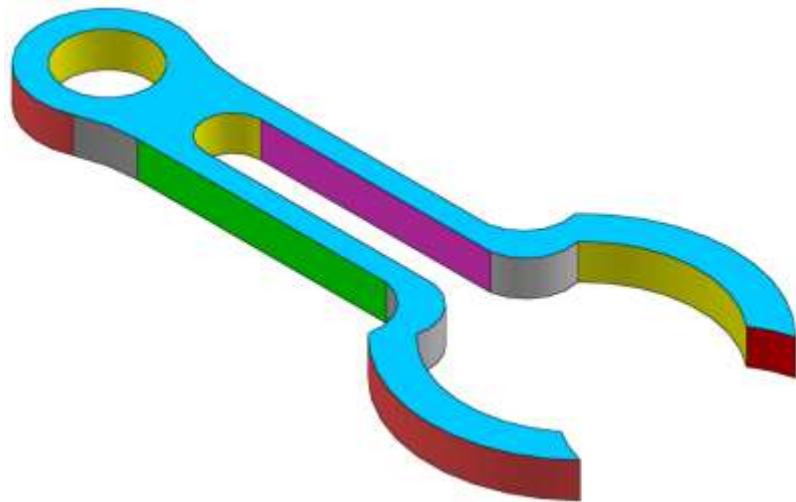


SECTION A-A

# EXERCISE-147

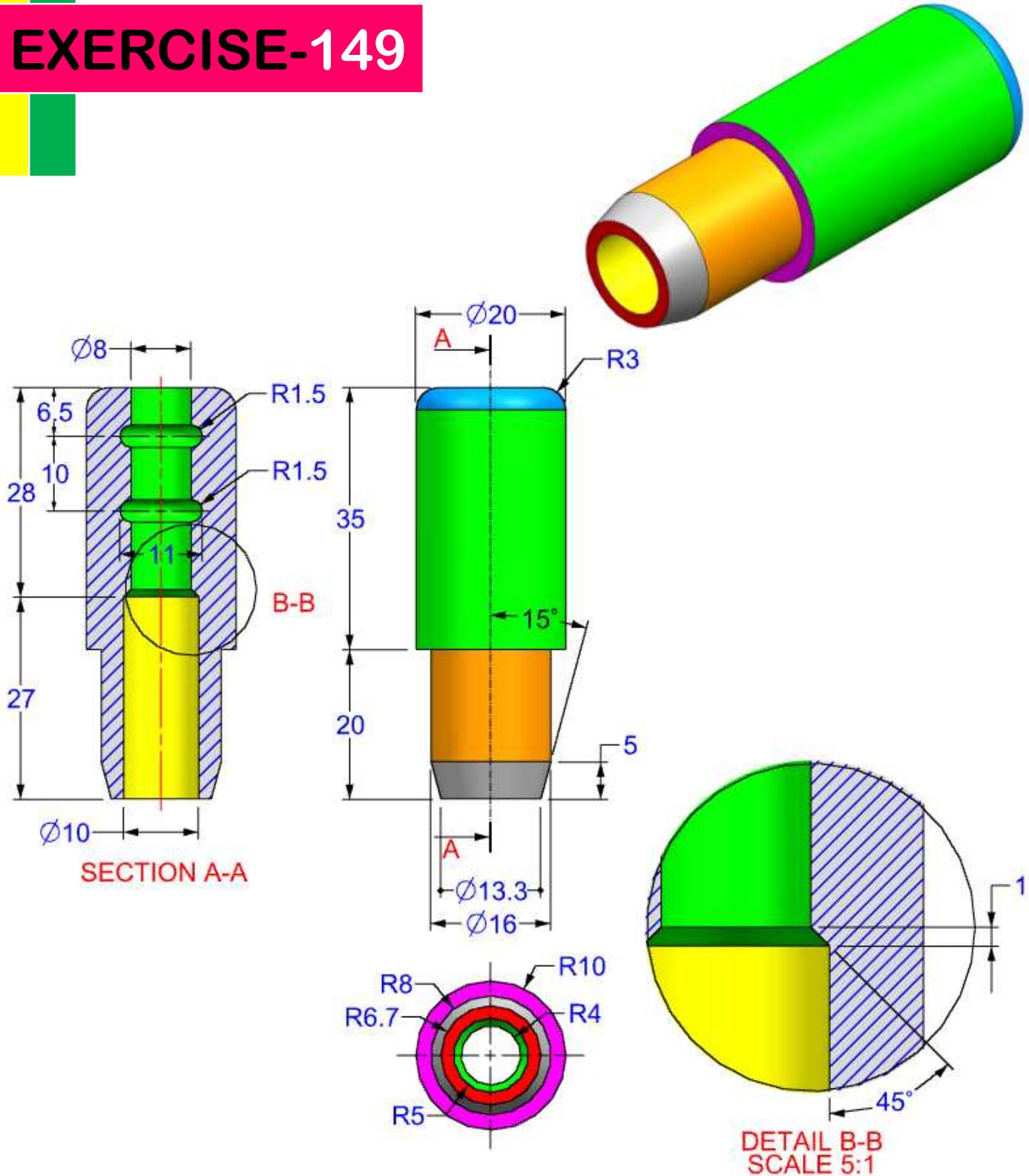


# EXERCISE-148

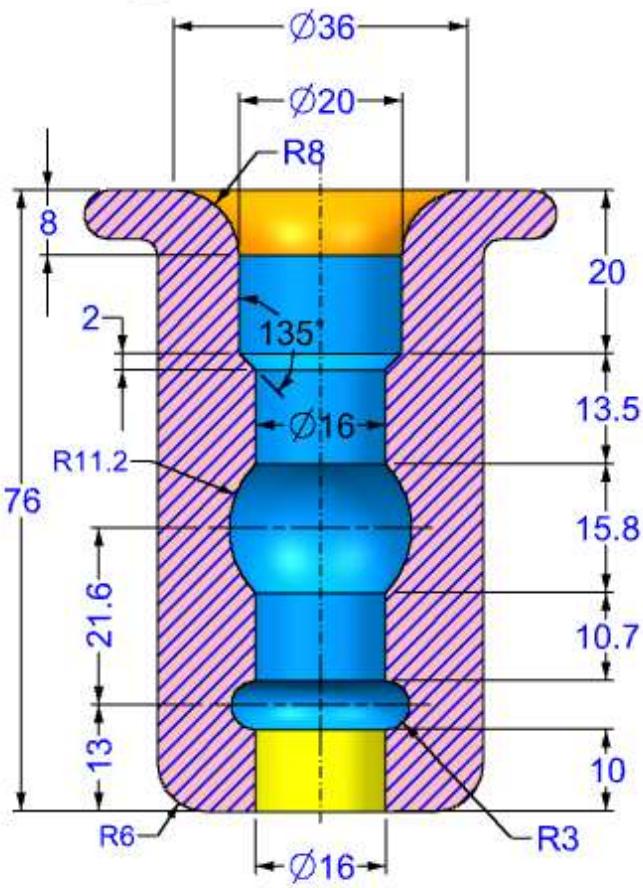
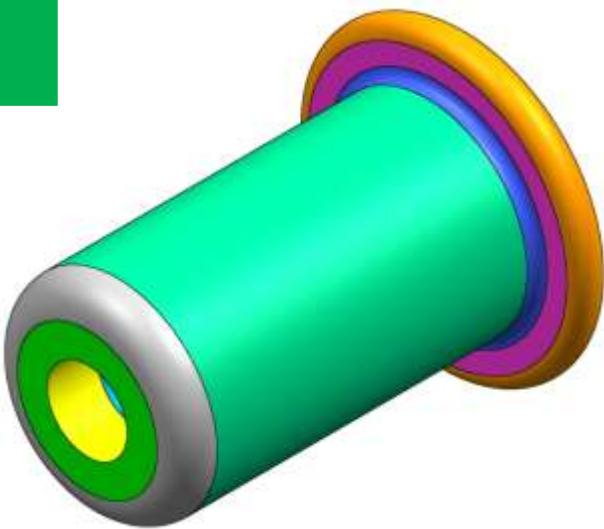


SECTION A-A

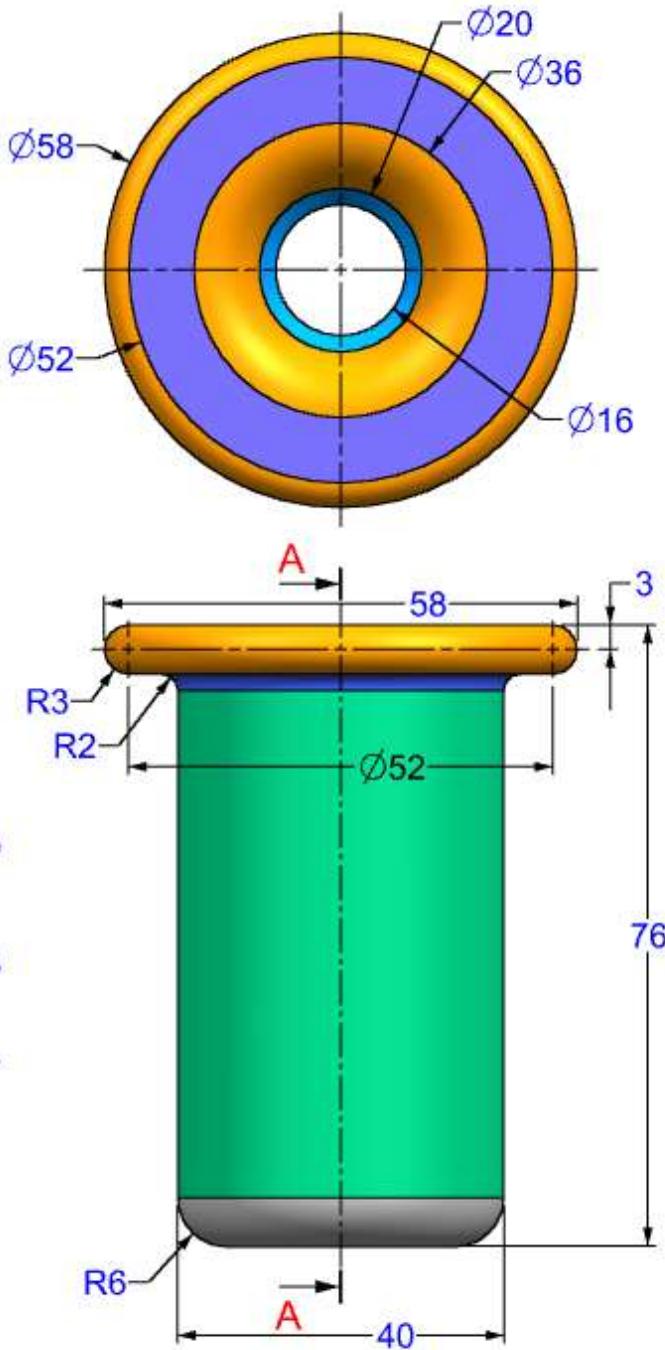
## EXERCISE-149



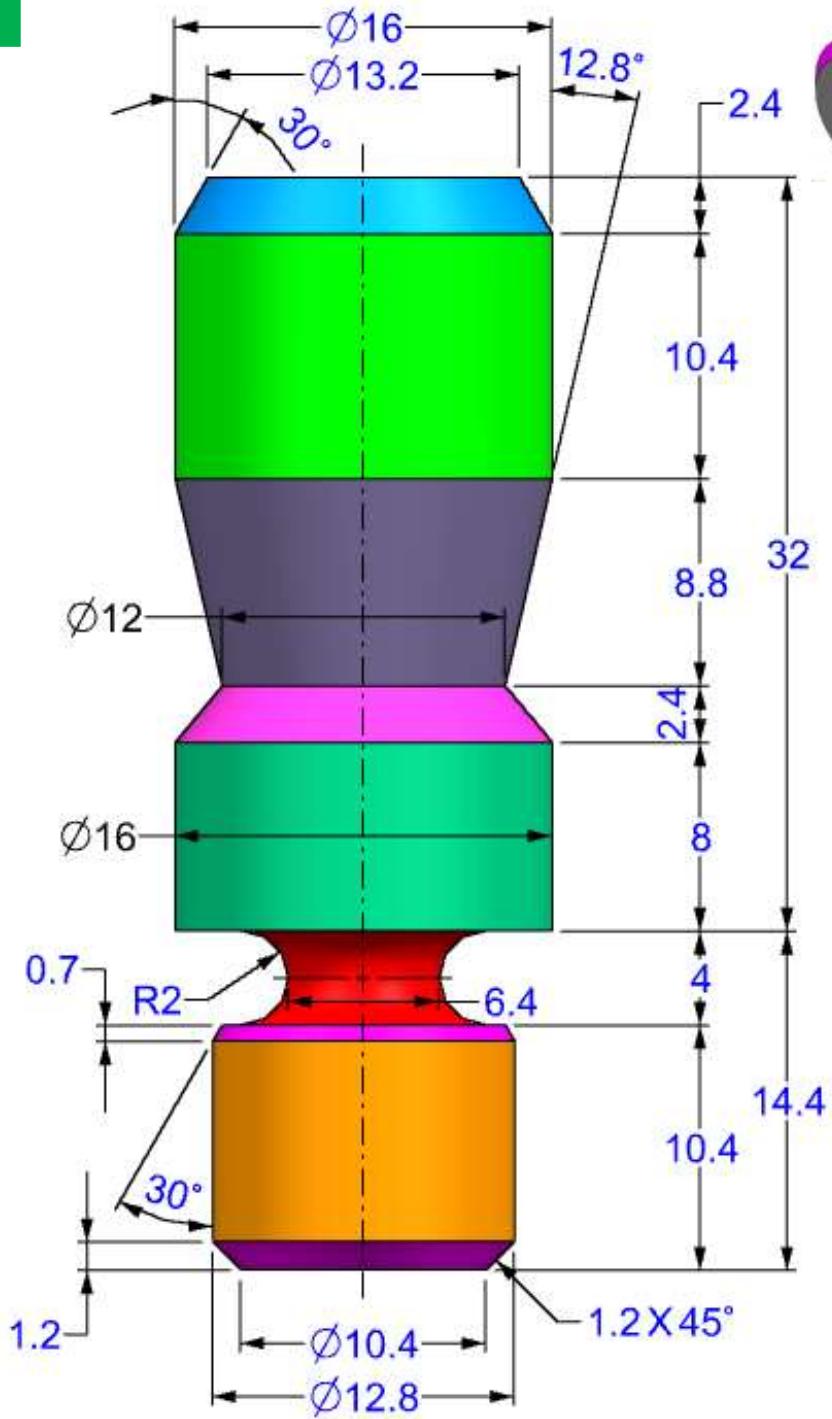
# **EXERCISE-150**



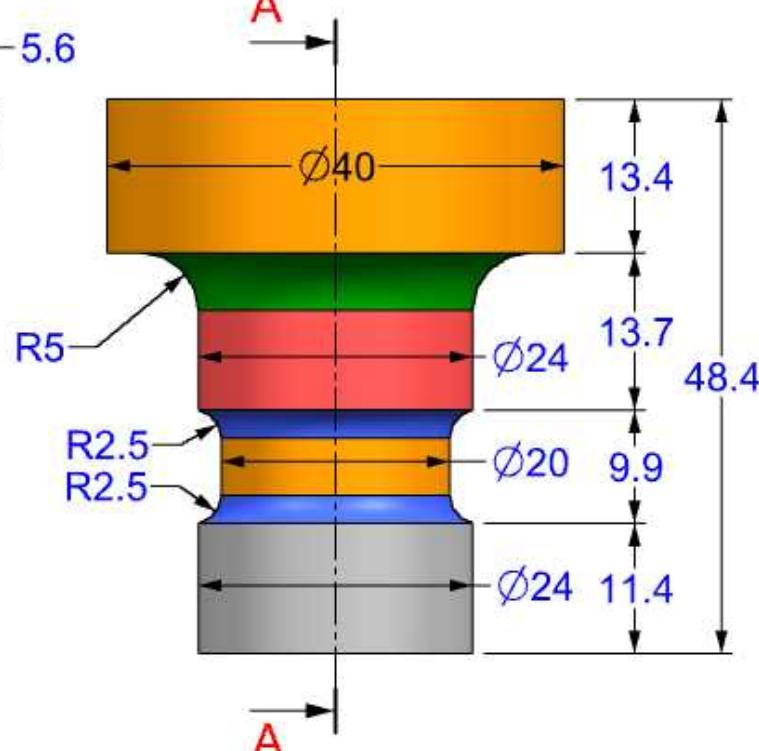
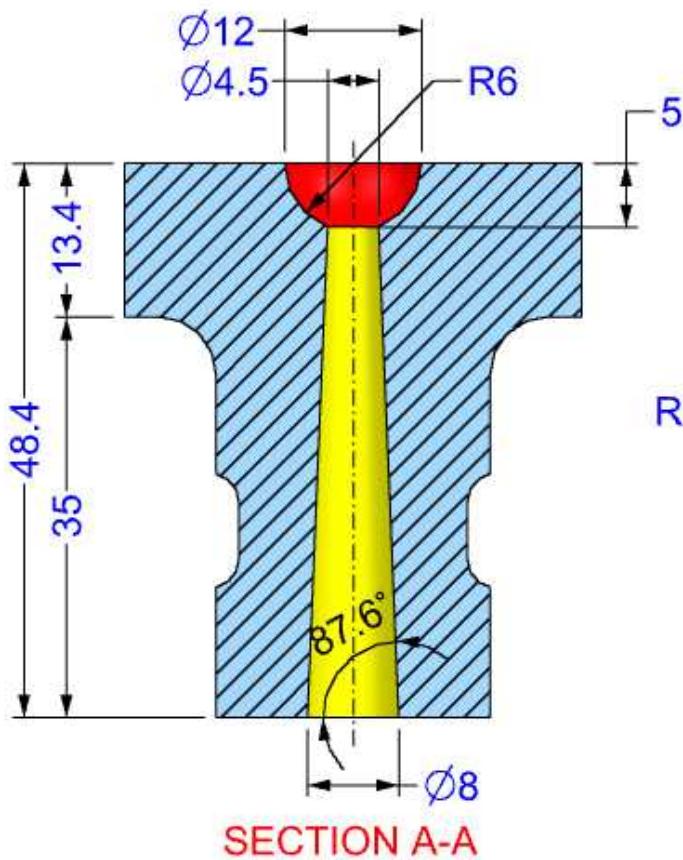
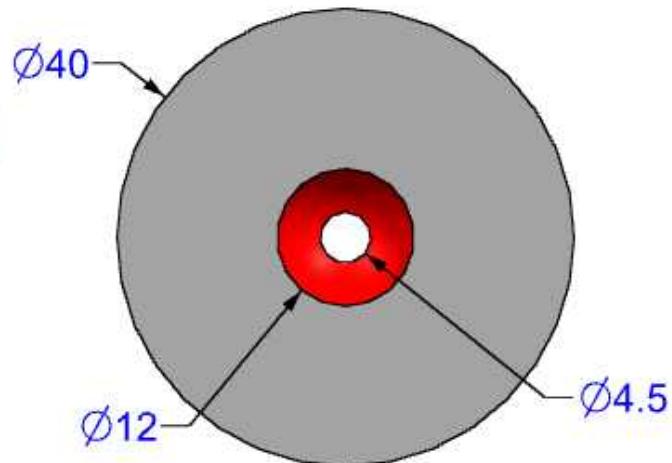
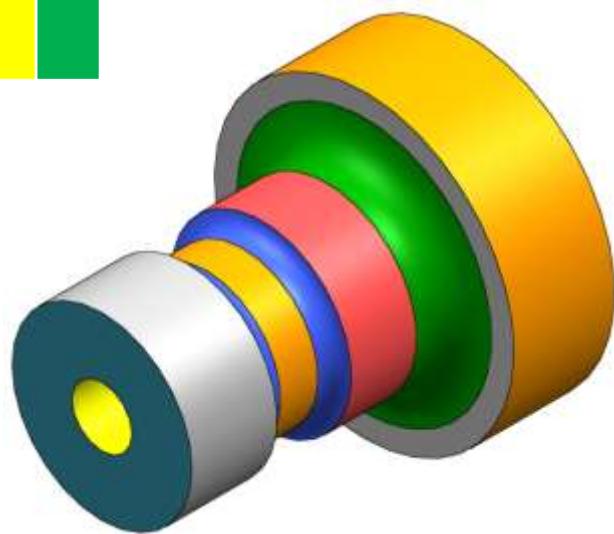
## SECTION A-A



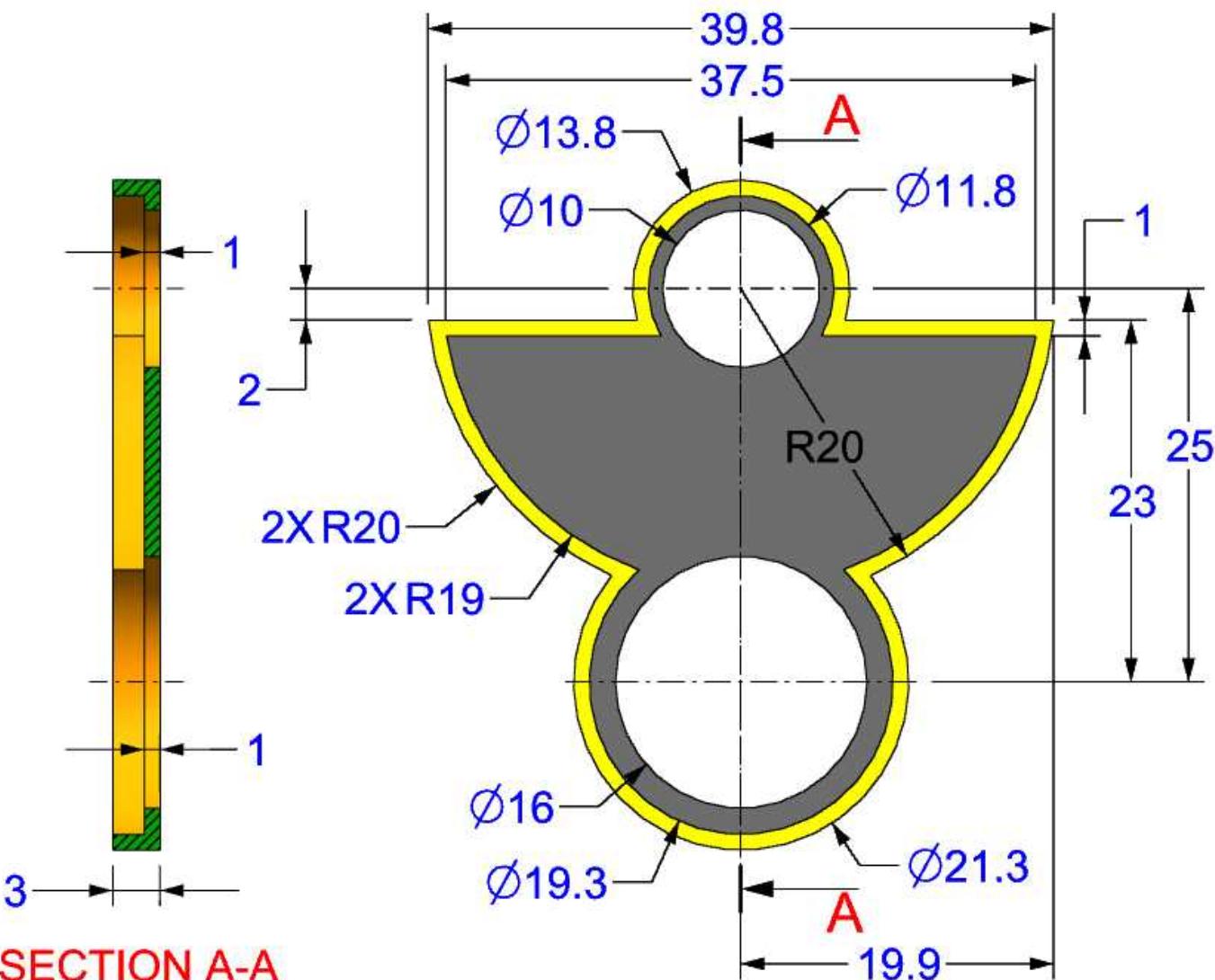
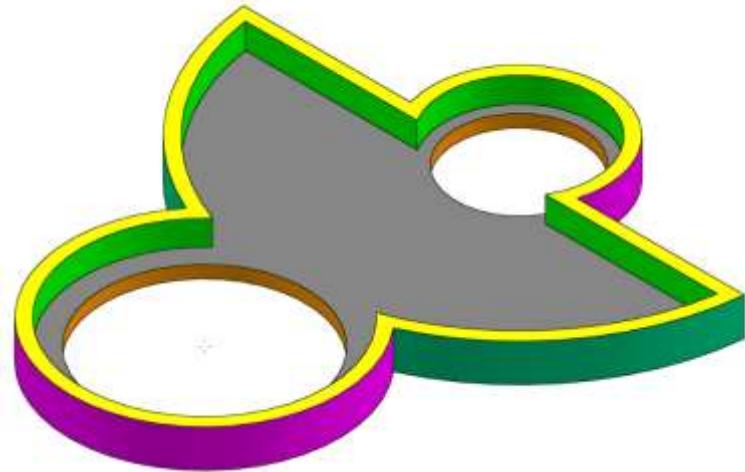
## EXERCISE-151



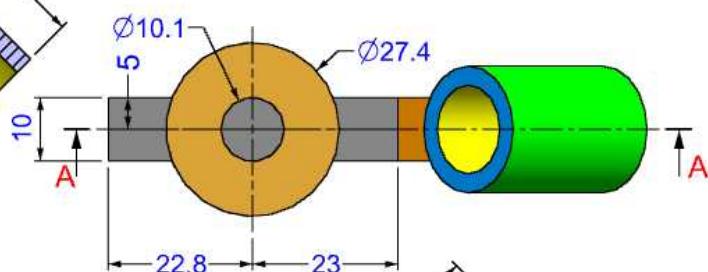
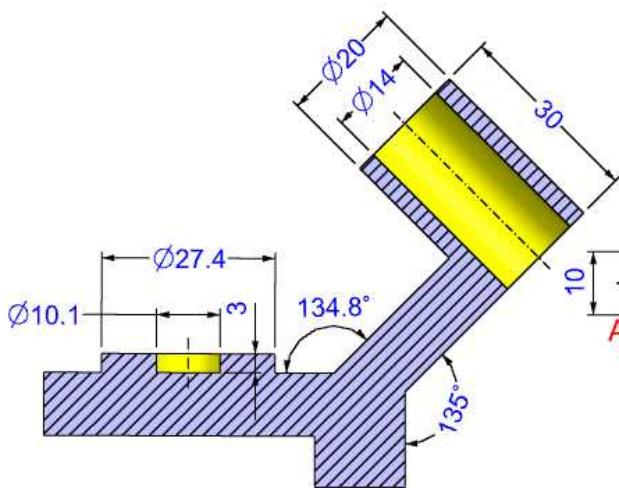
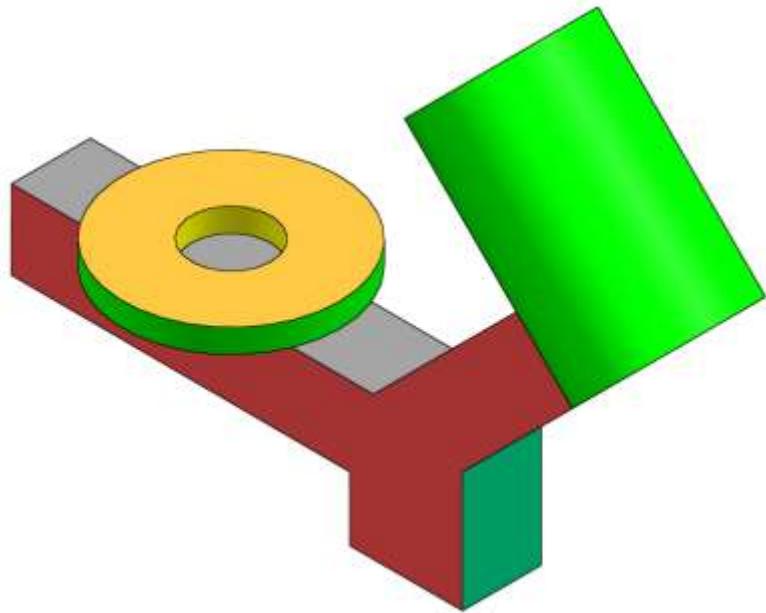
# EXERCISE-152



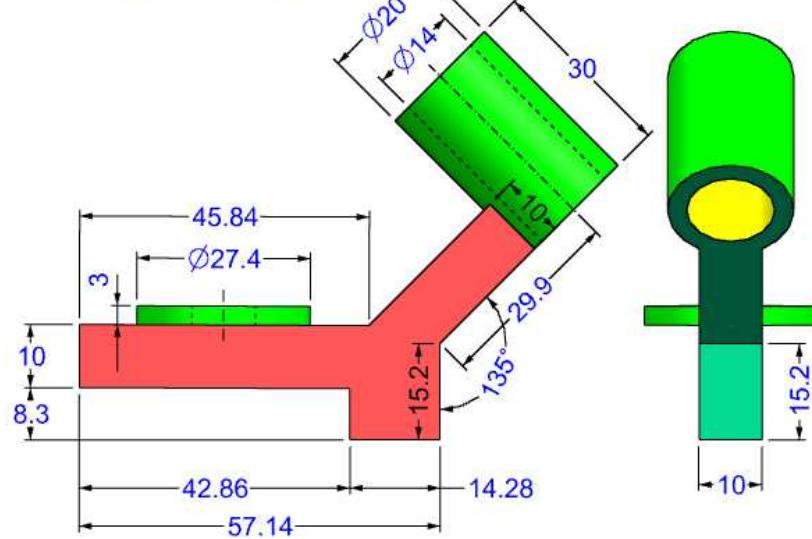
# **EXERCISE-153**



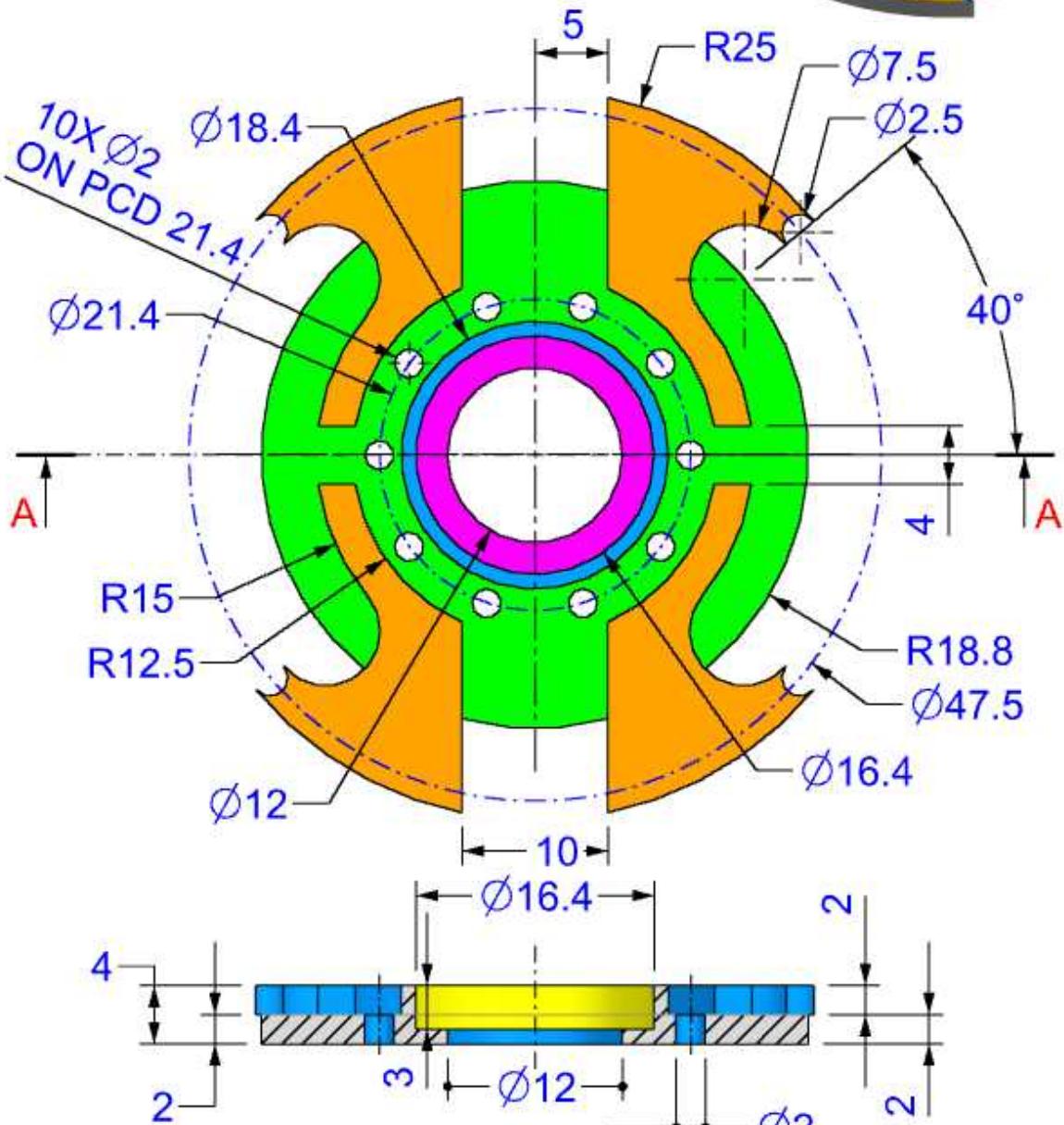
# EXERCISE-154



SECTION A-A

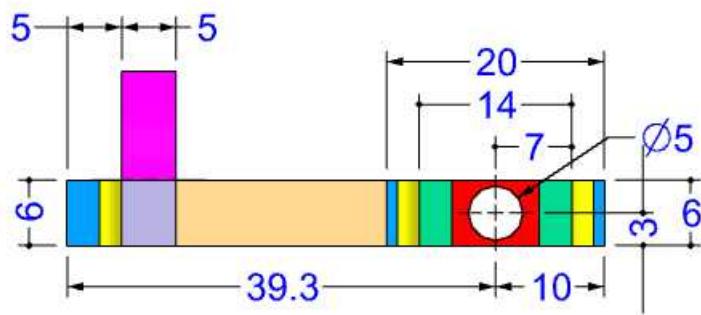
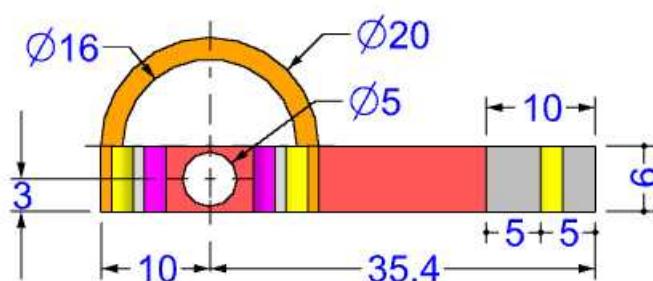
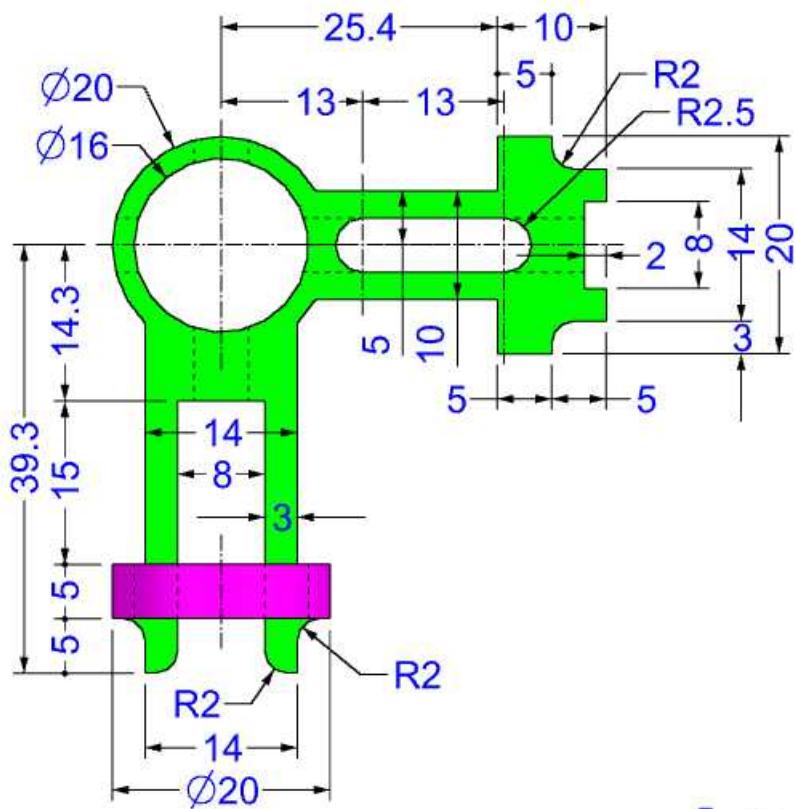
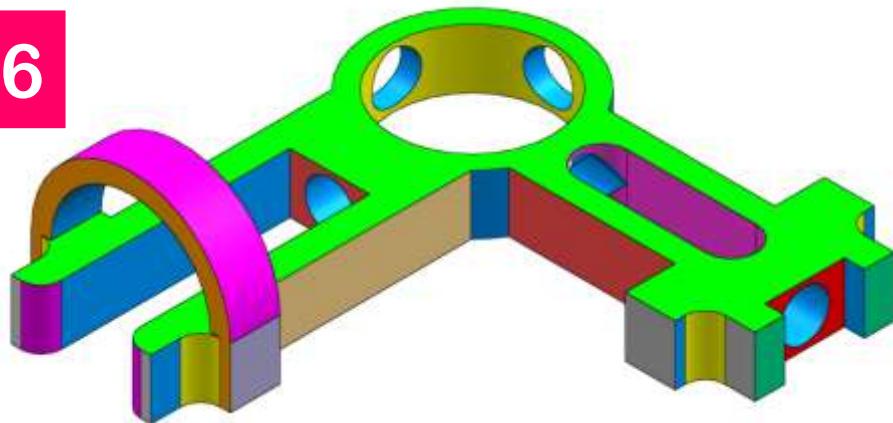


# **EXERCISE-155**

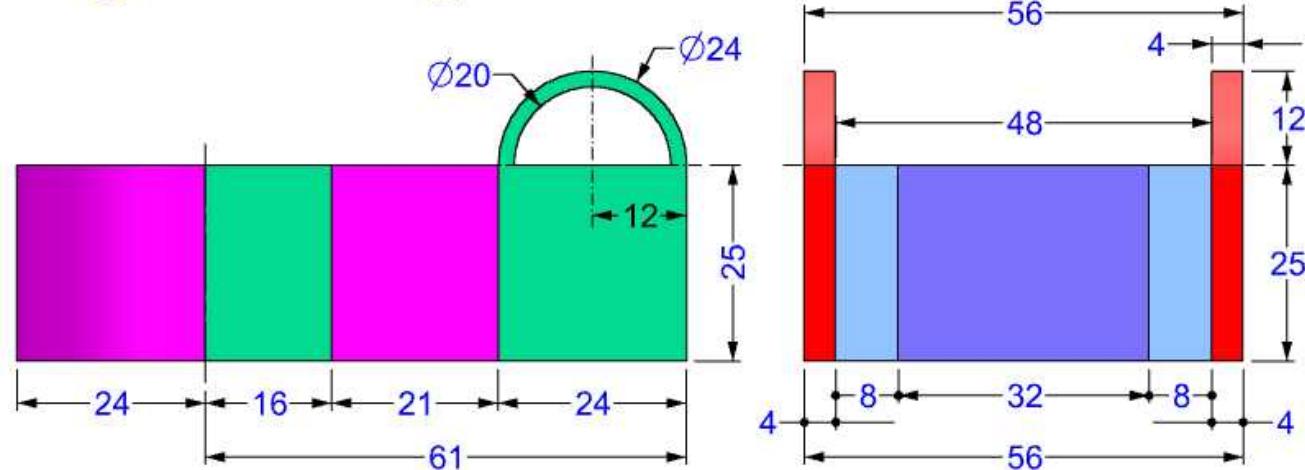
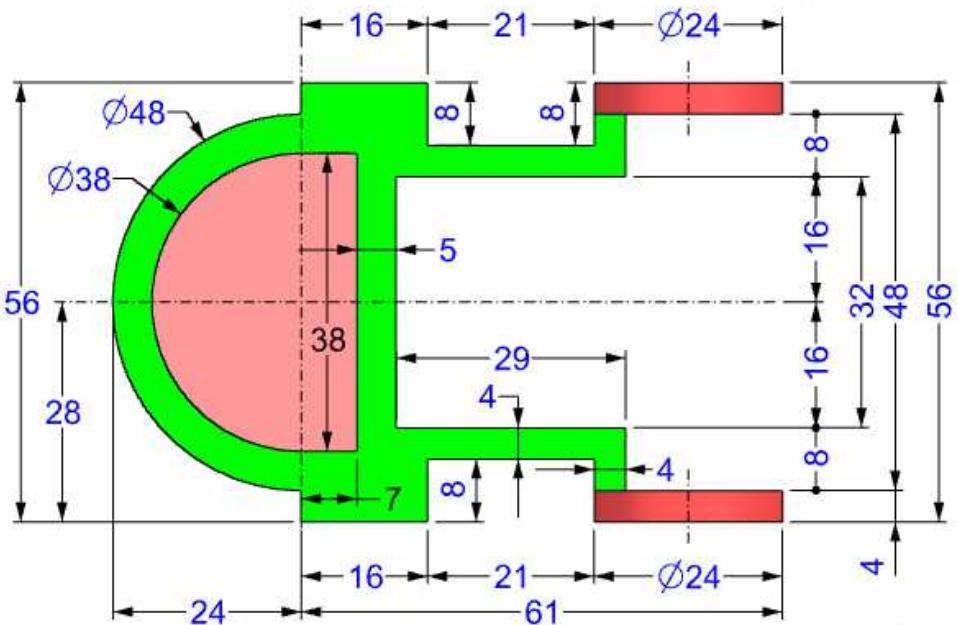
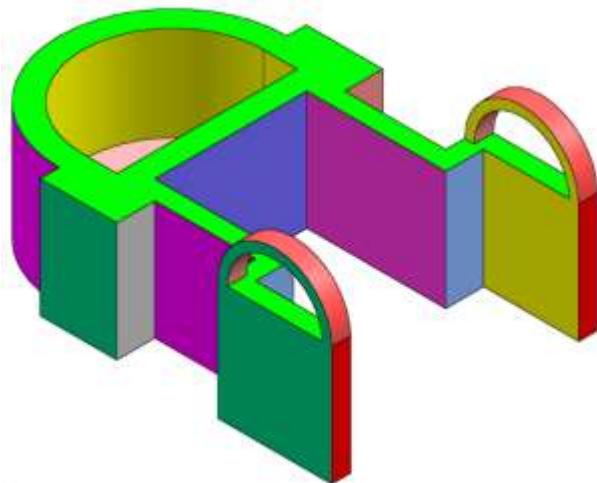


SECTION A-A

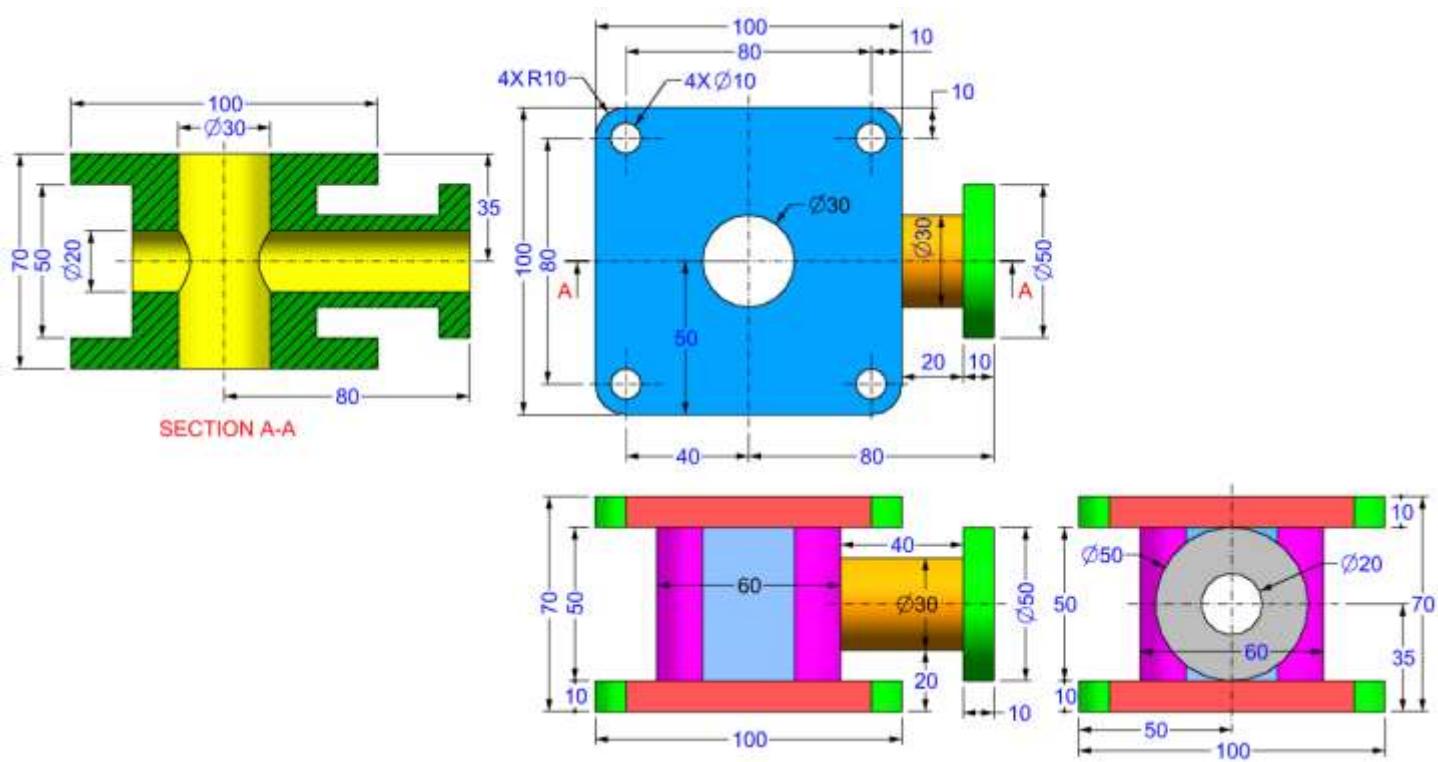
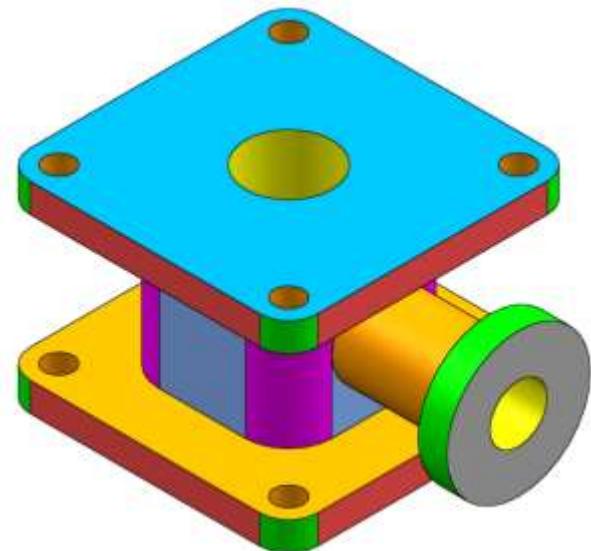
# **EXERCISE-156**



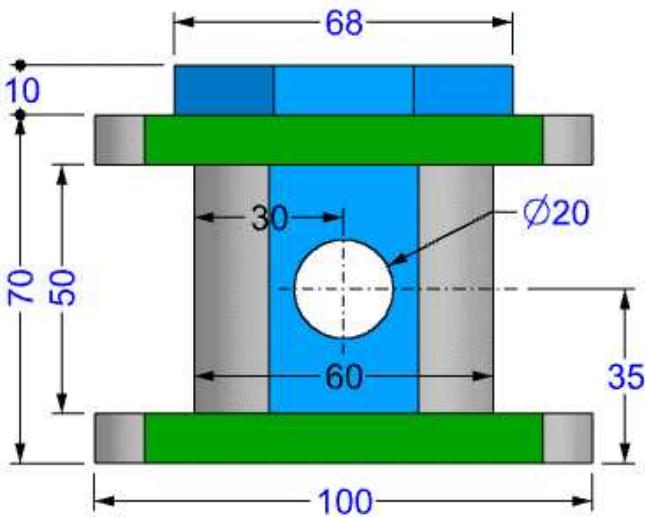
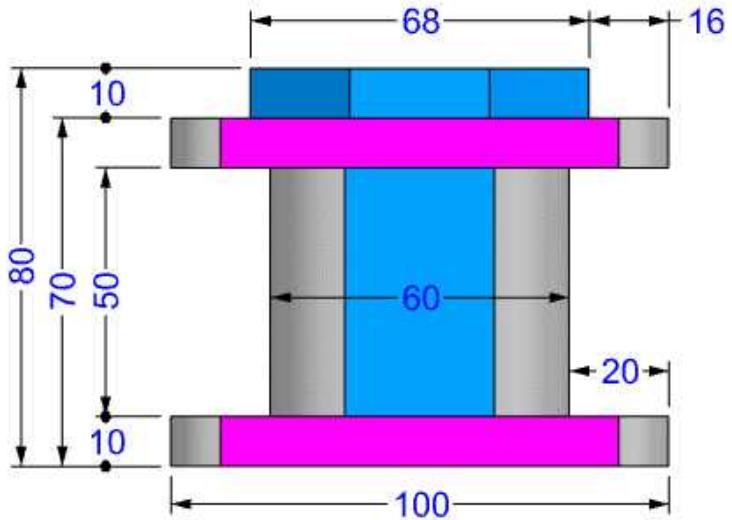
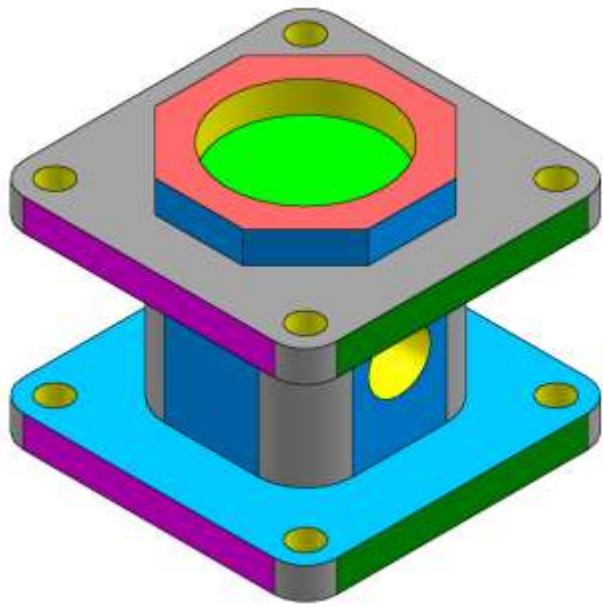
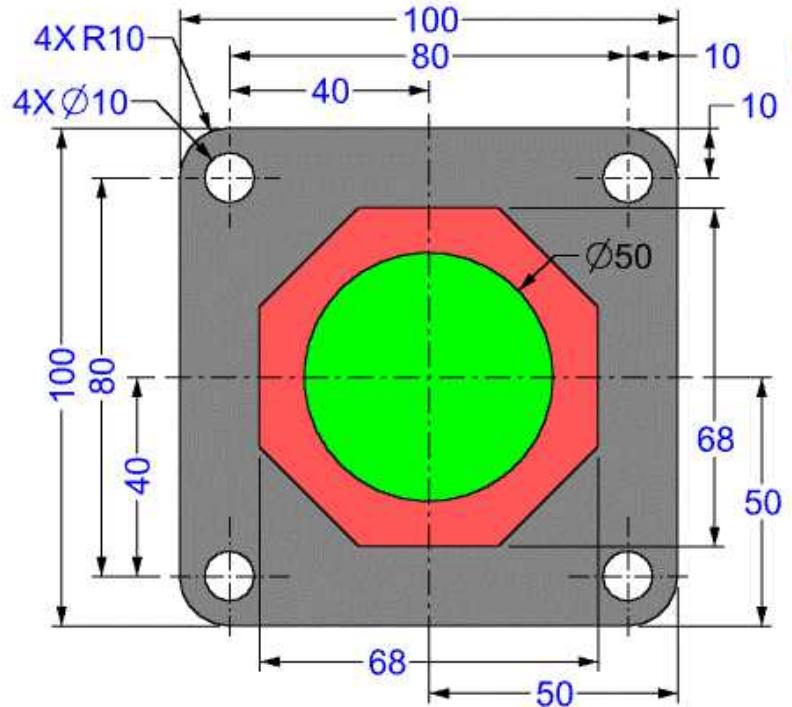
## EXERCISE-157



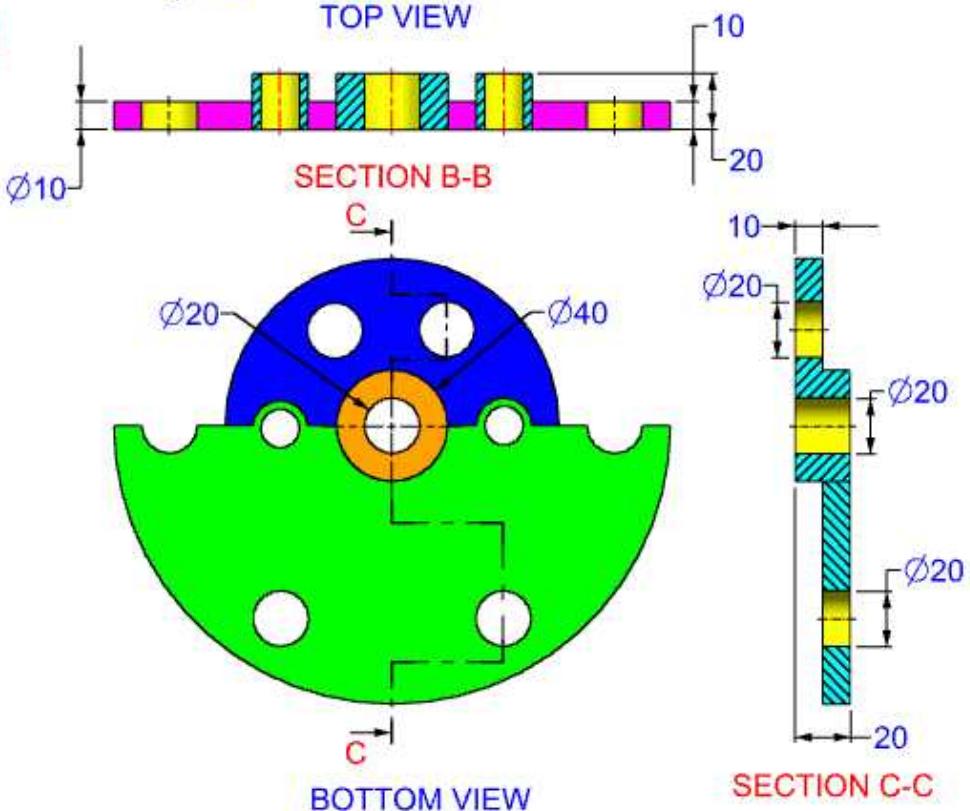
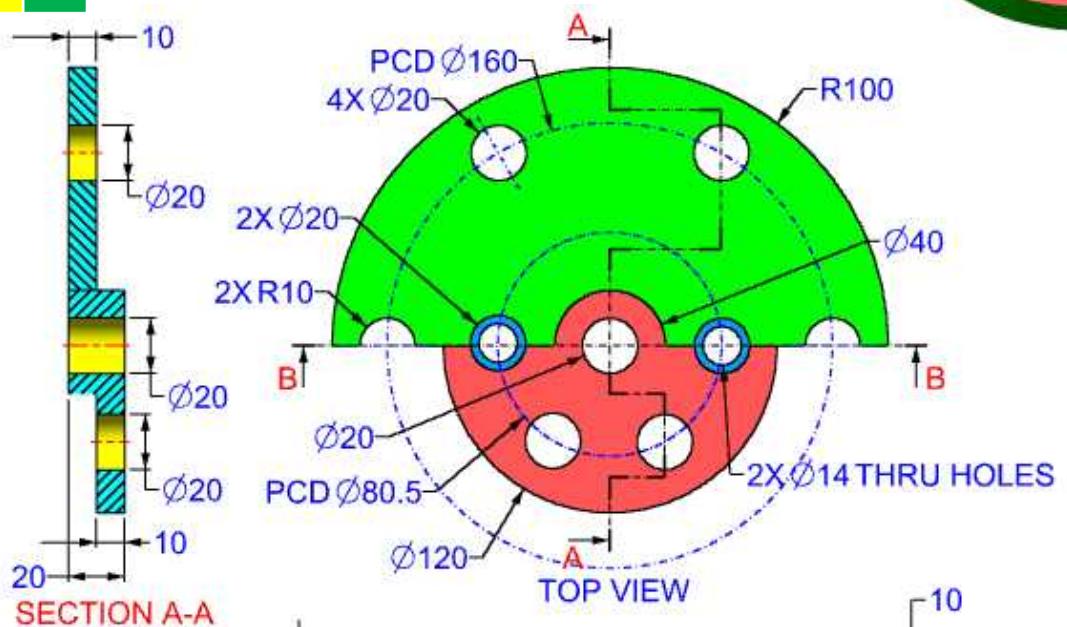
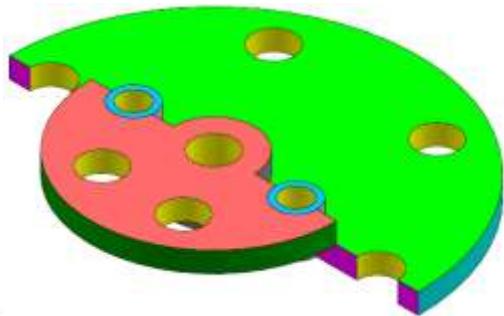
# EXERCISE-158



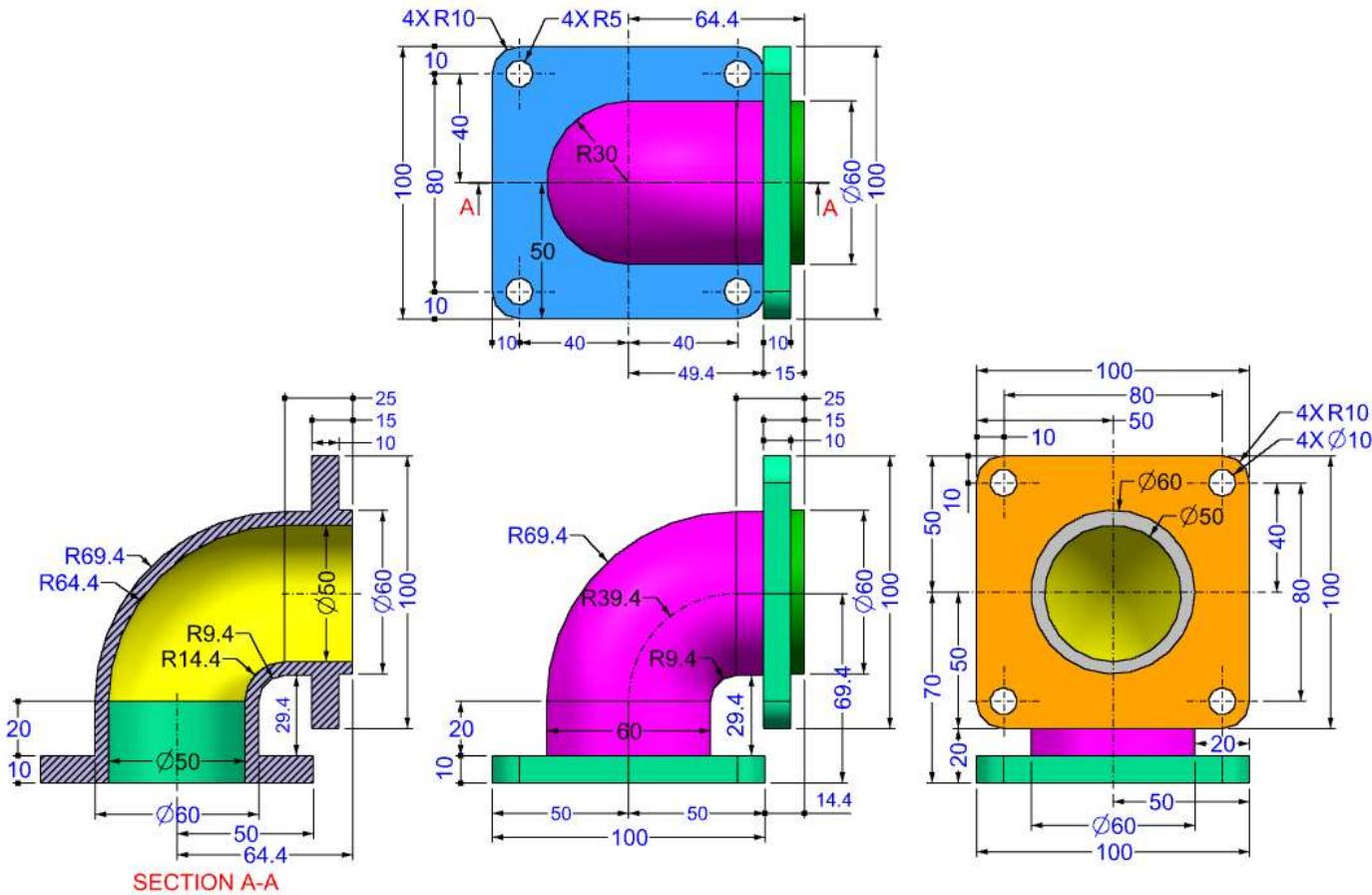
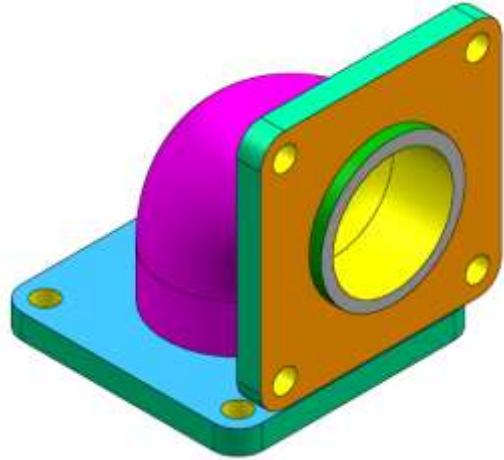
# EXERCISE-159



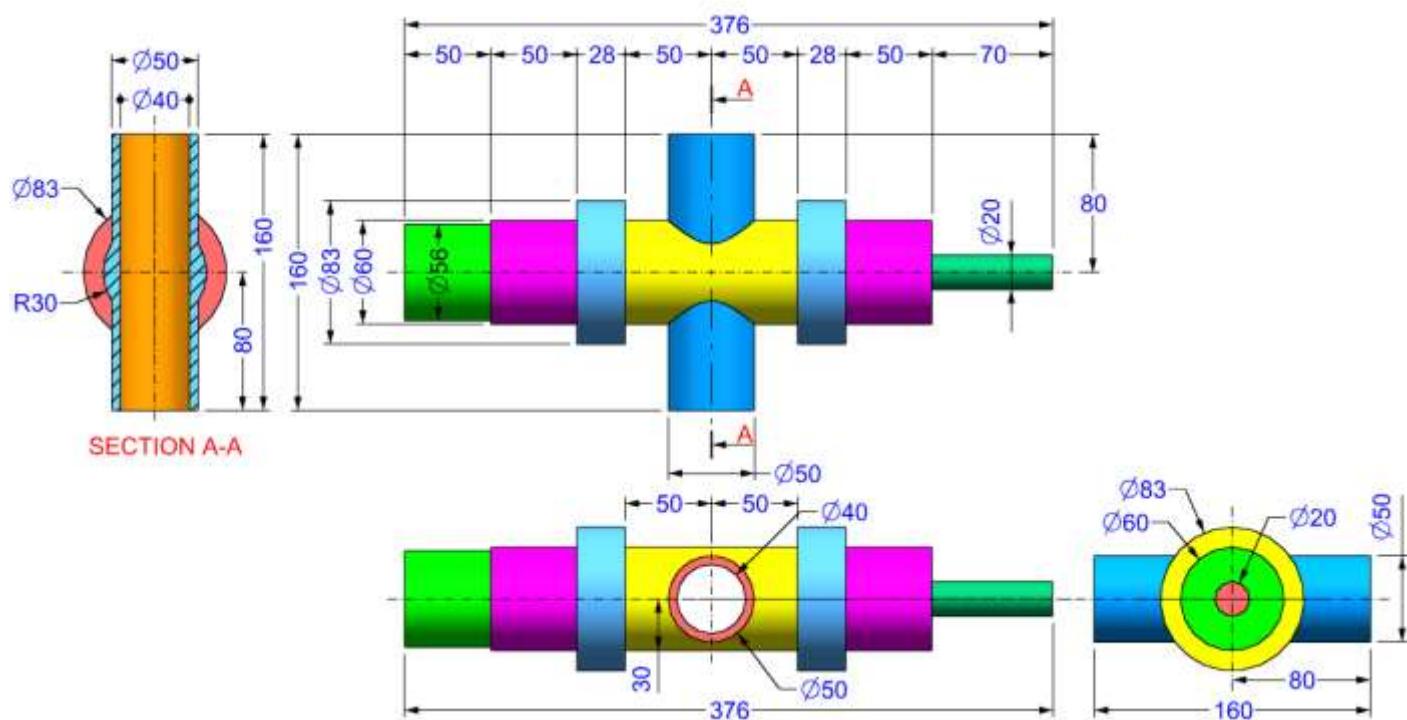
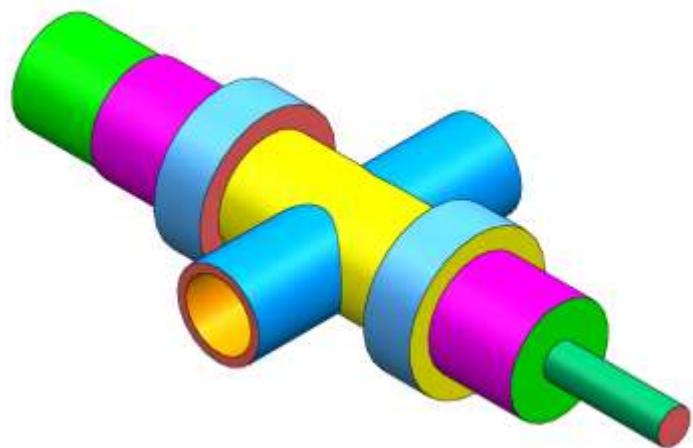
# EXERCISE-160



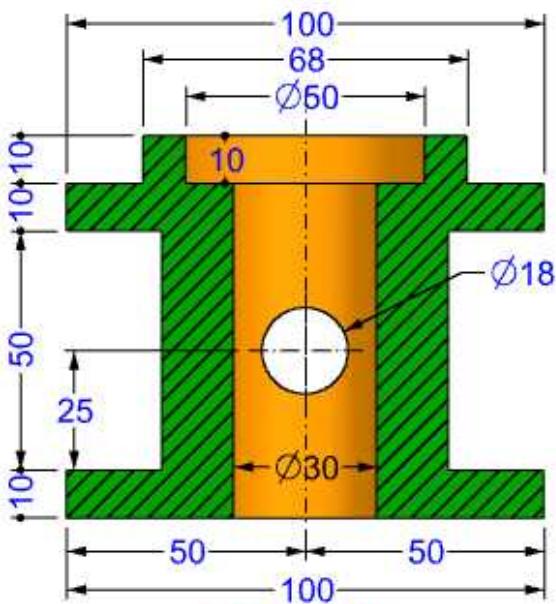
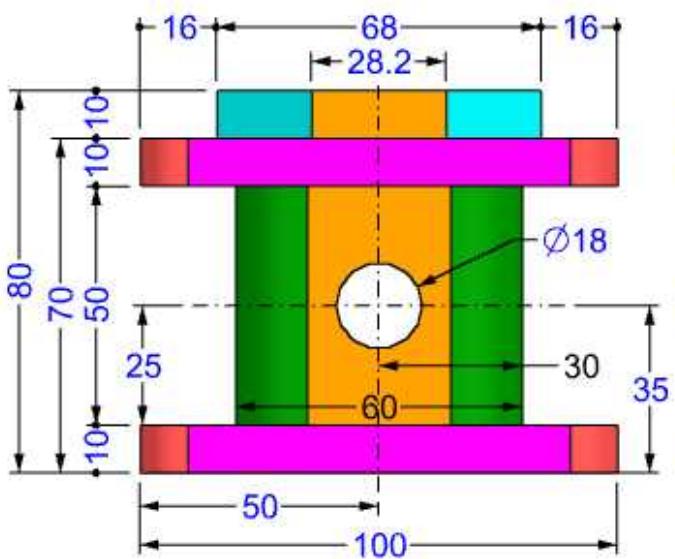
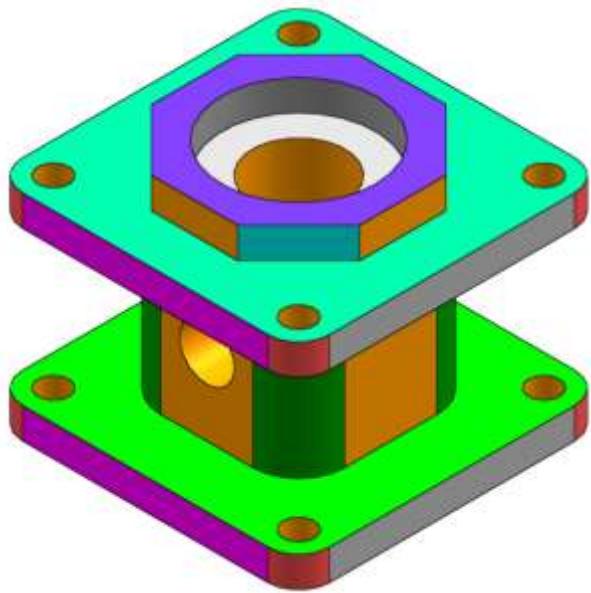
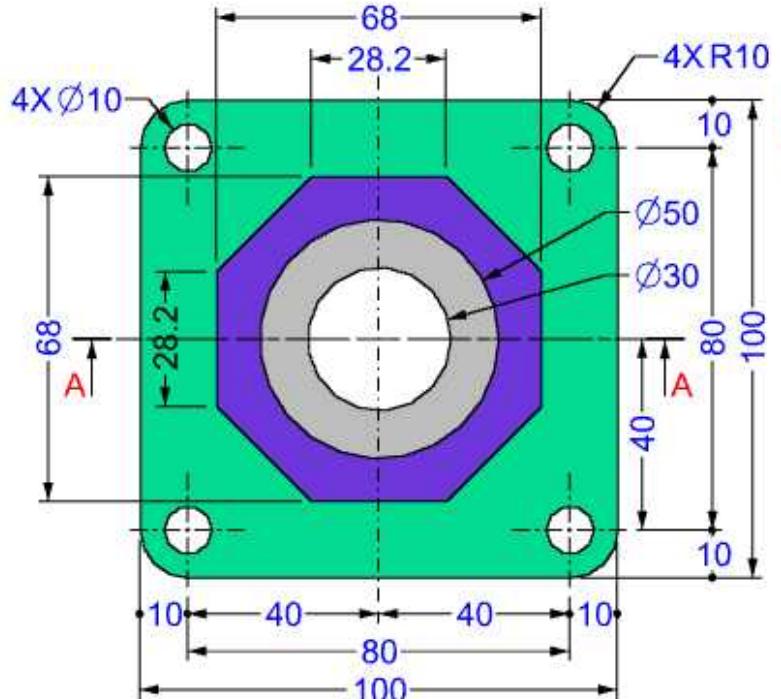
## **EXERCISE-161**



# EXERCISE-162

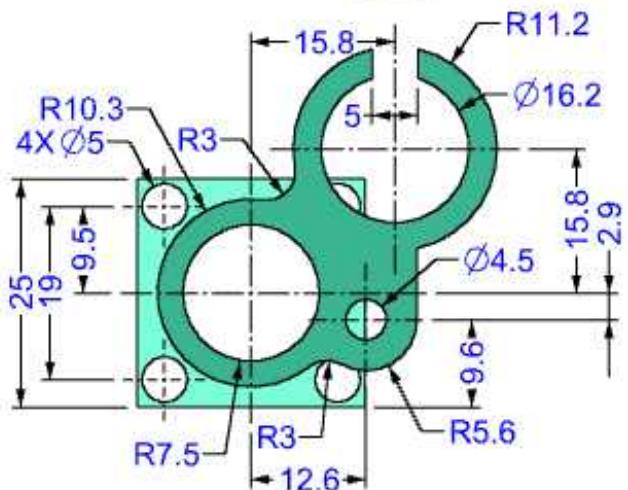
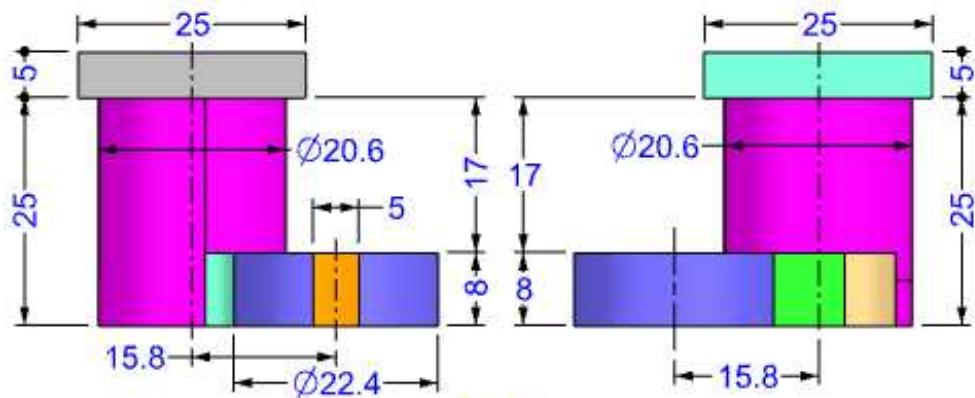
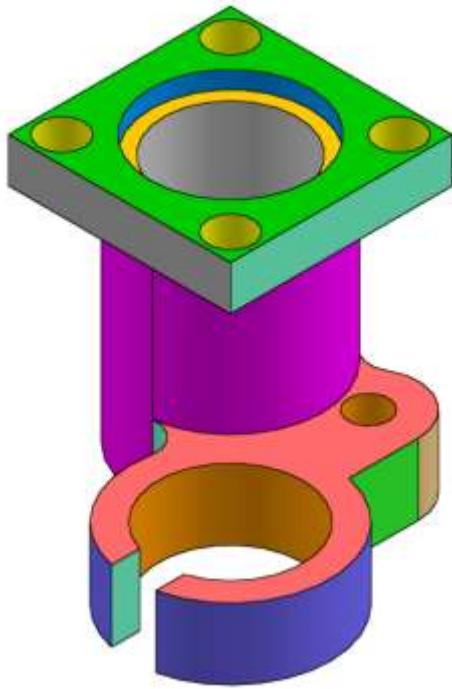
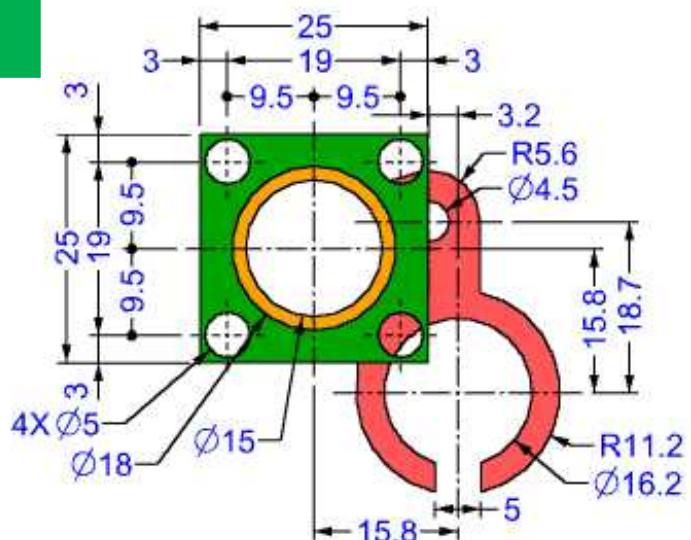


# EXERCISE-163

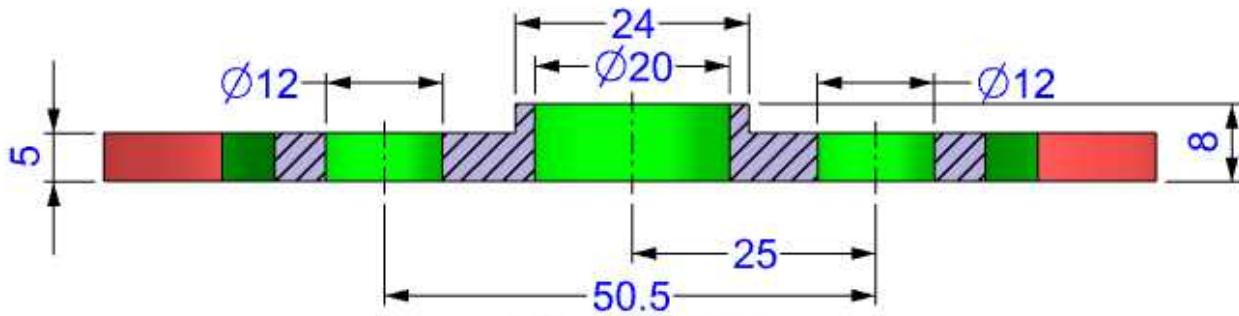
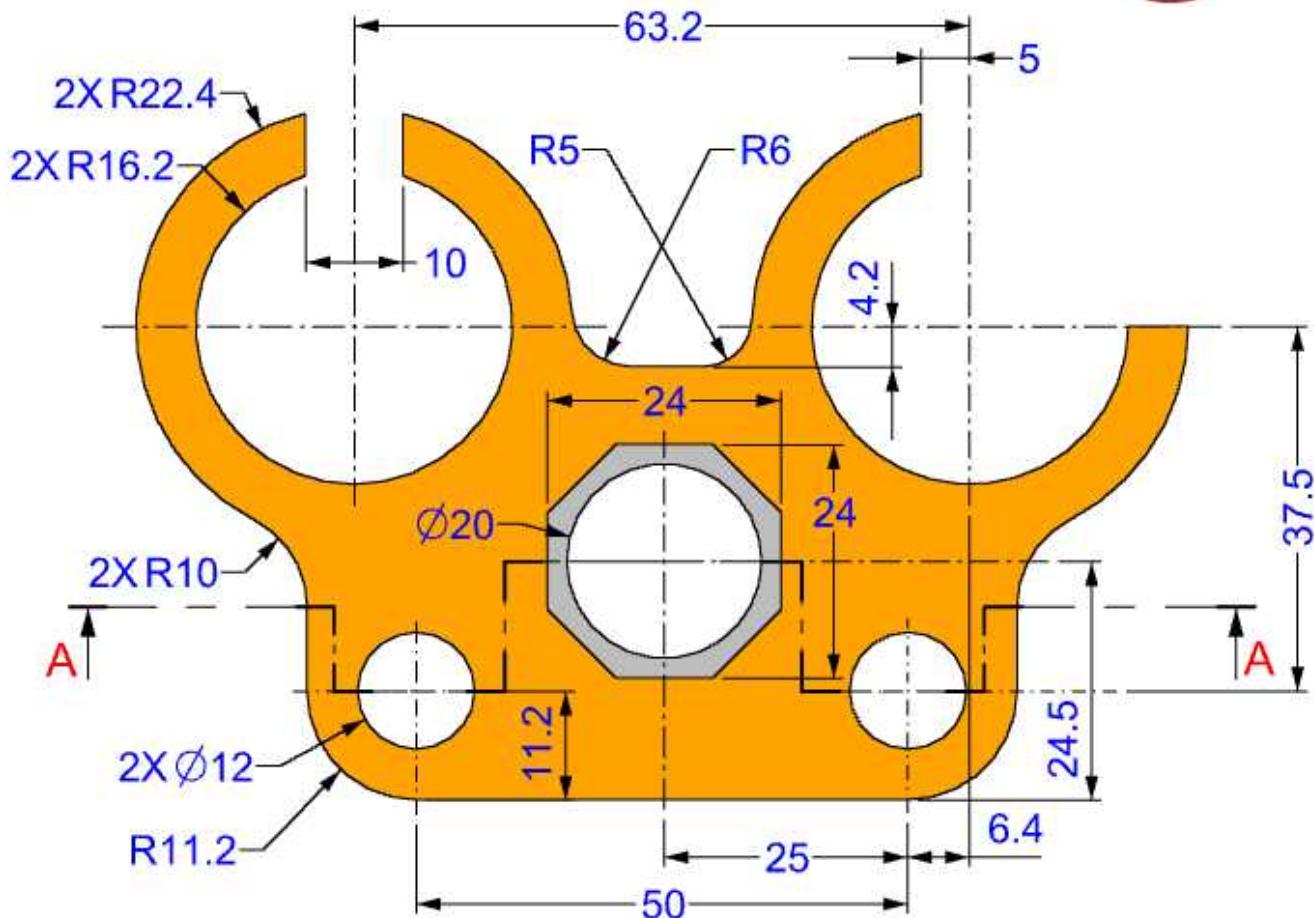


SECTION A-A

# EXERCISE-164

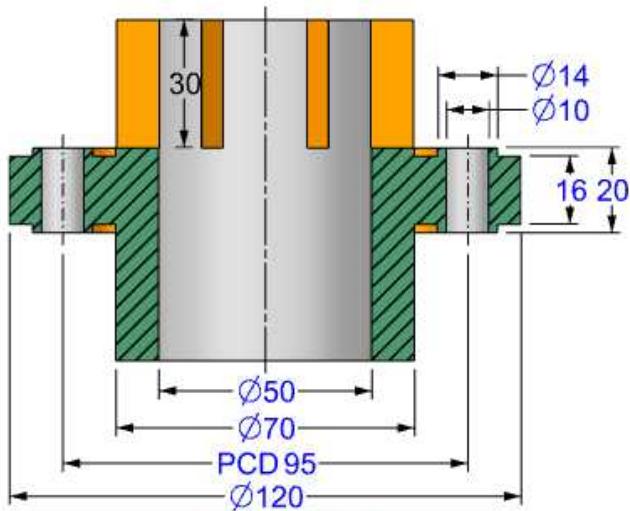
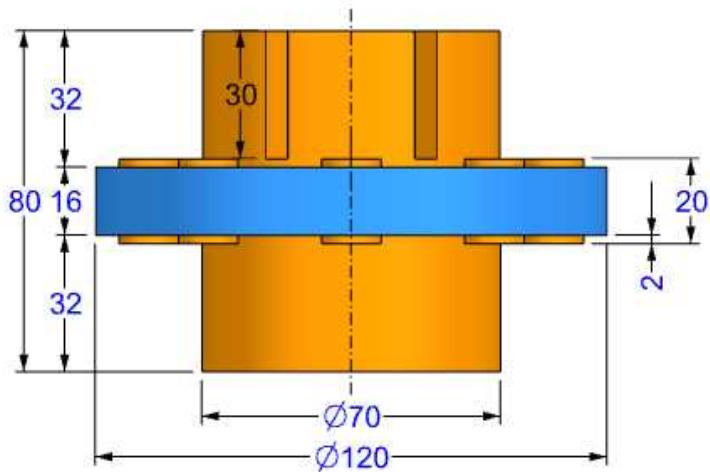
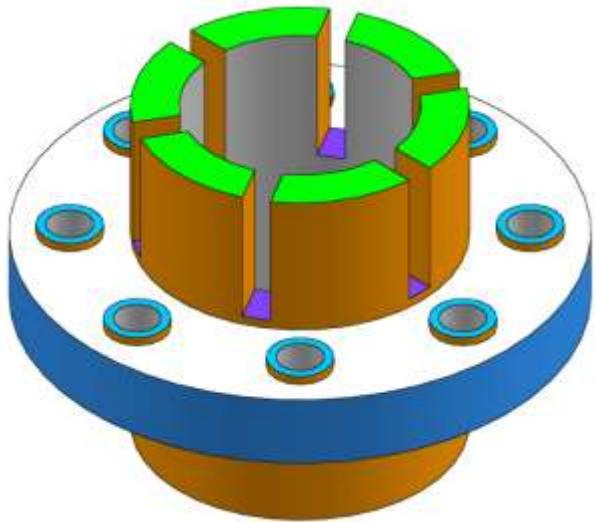
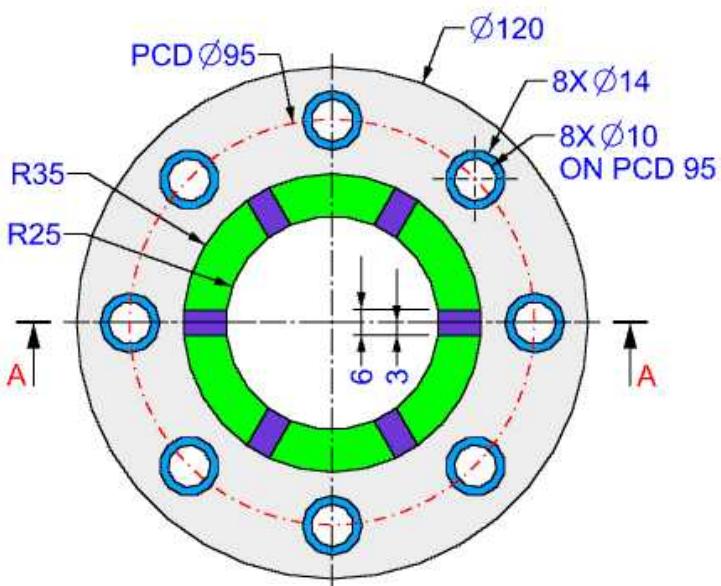


## EXERCISE-165



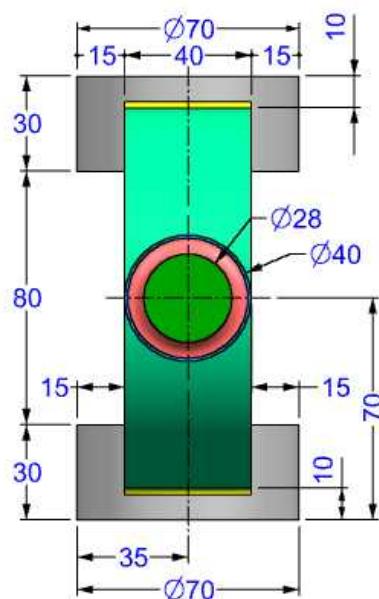
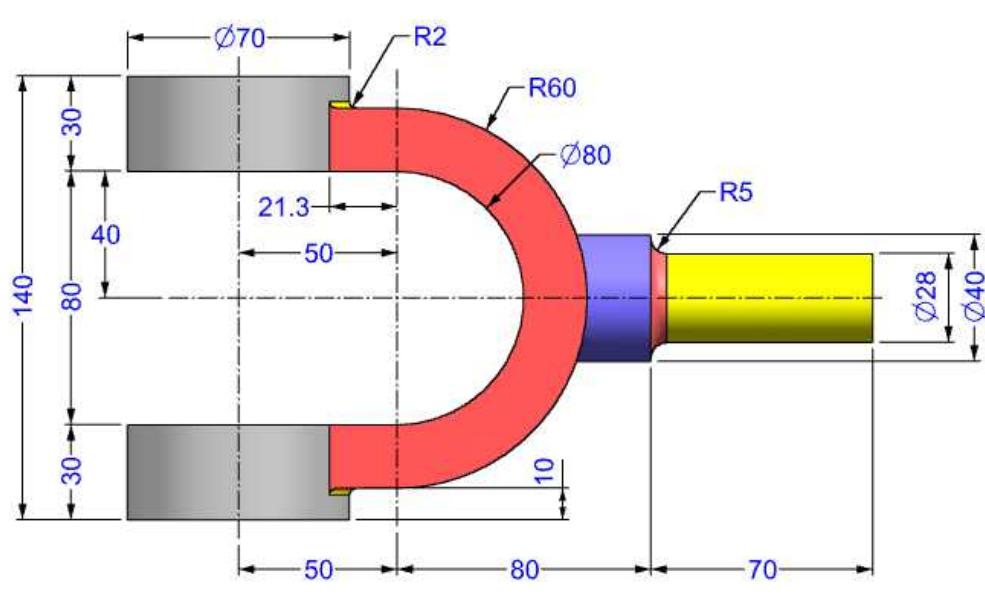
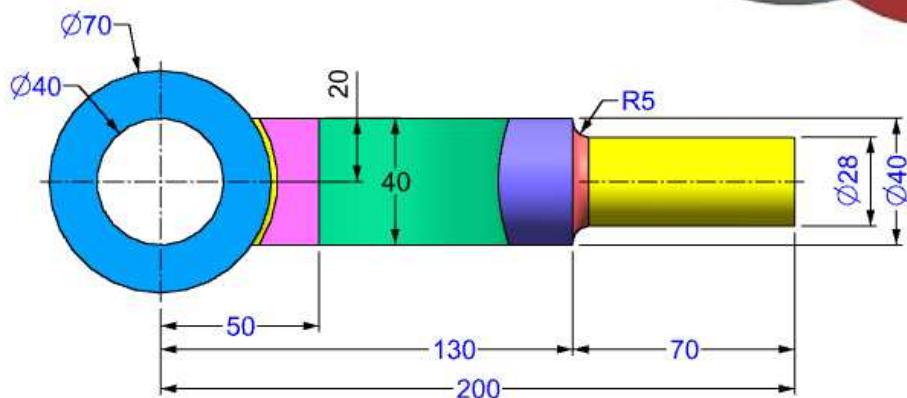
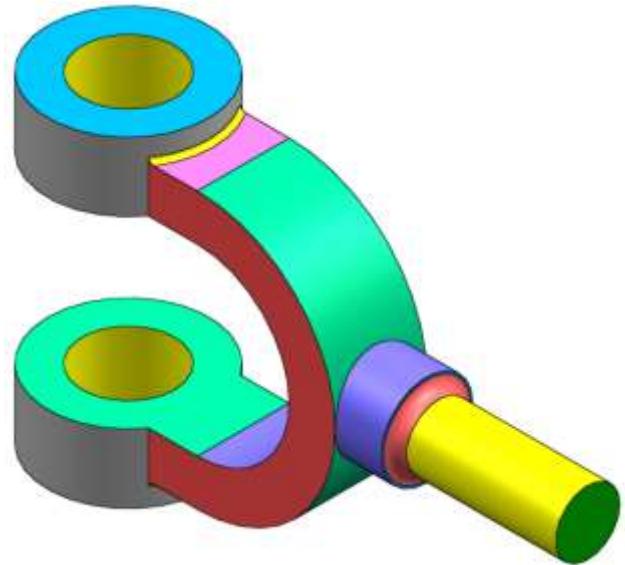
SECTION A-A

# EXERCISE-166

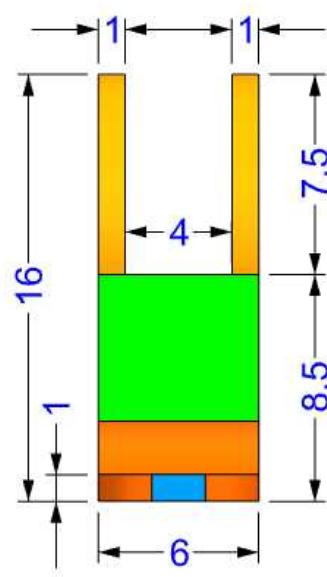
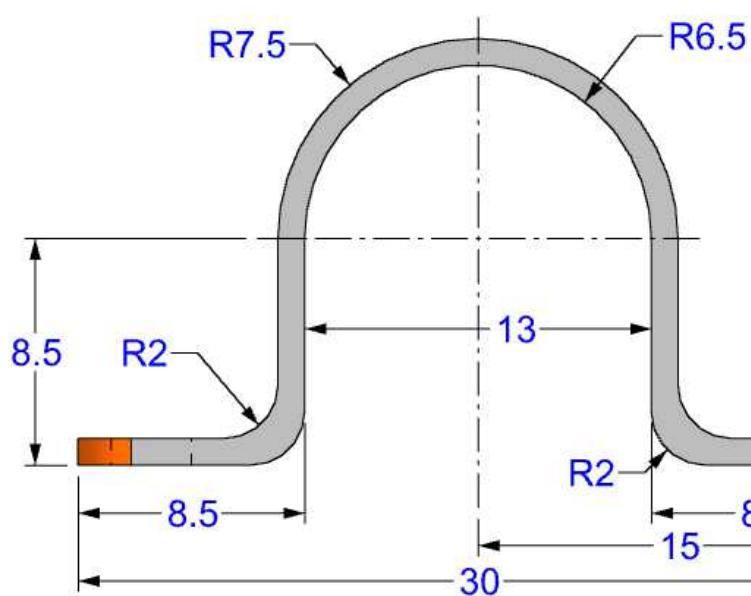
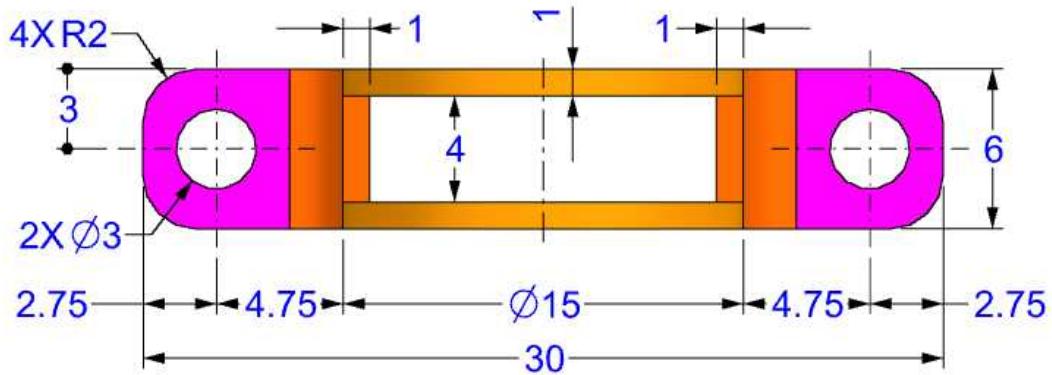
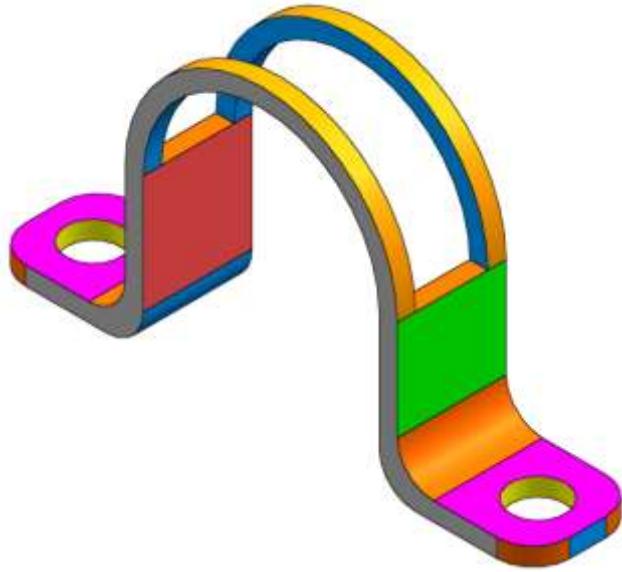


SECTION A-A

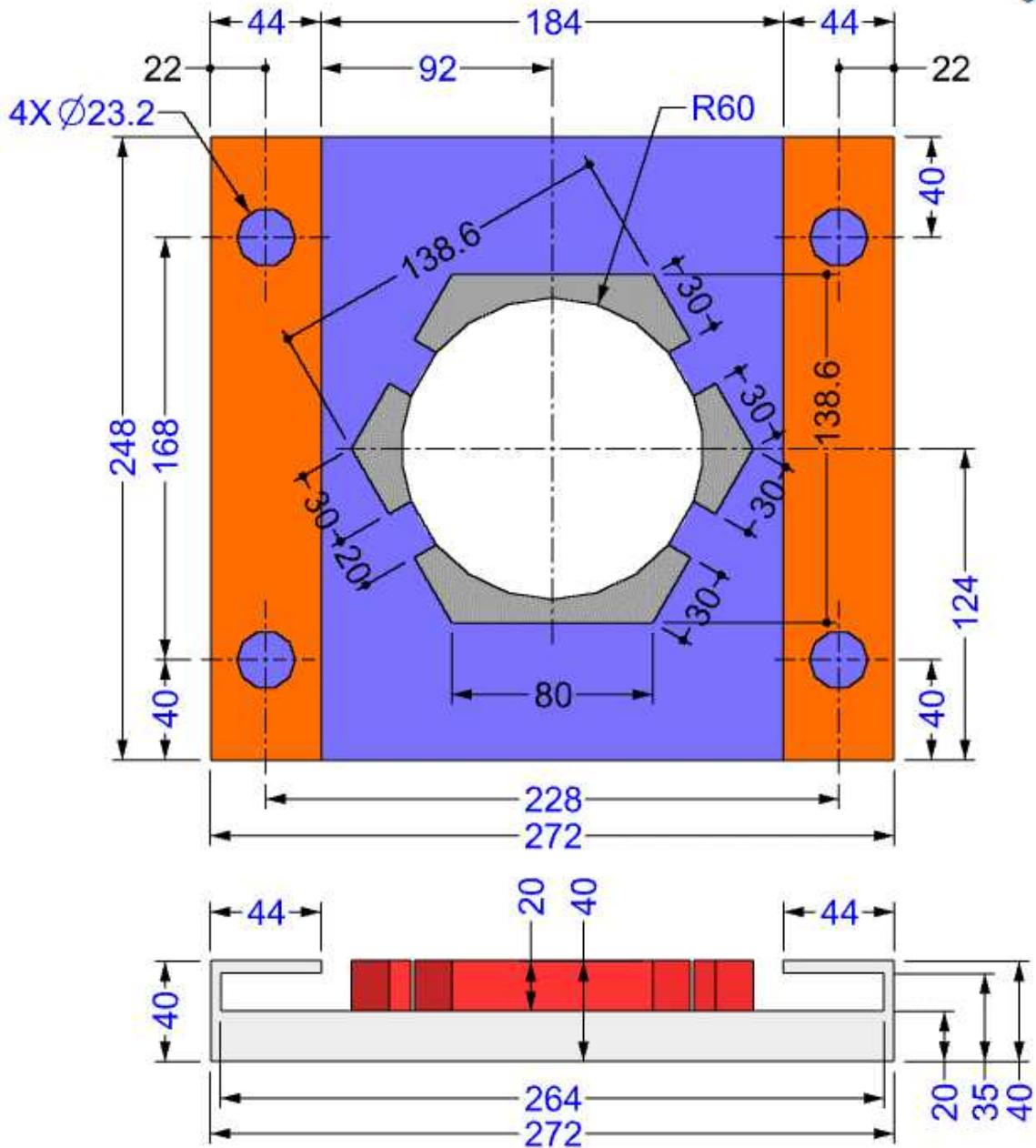
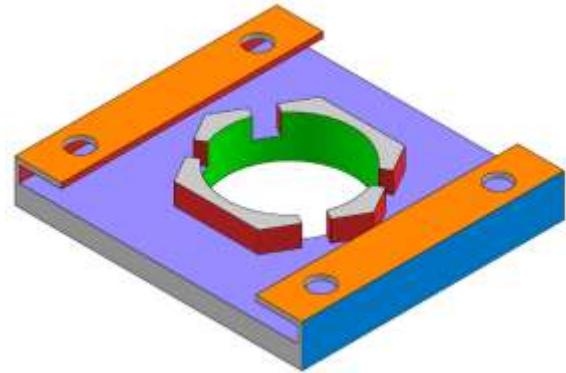
# EXERCISE-167



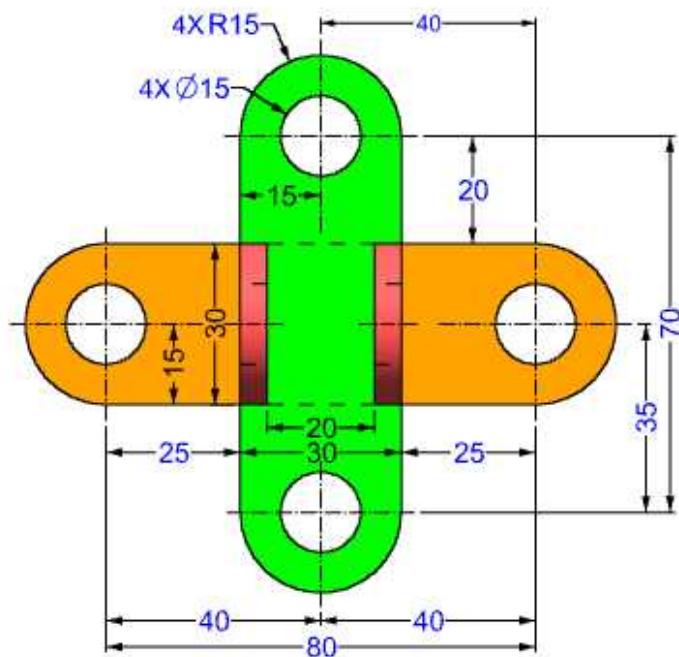
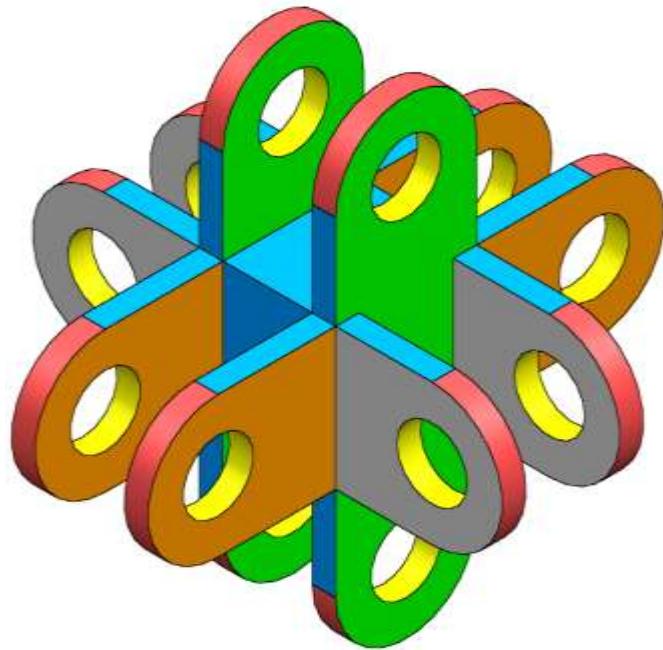
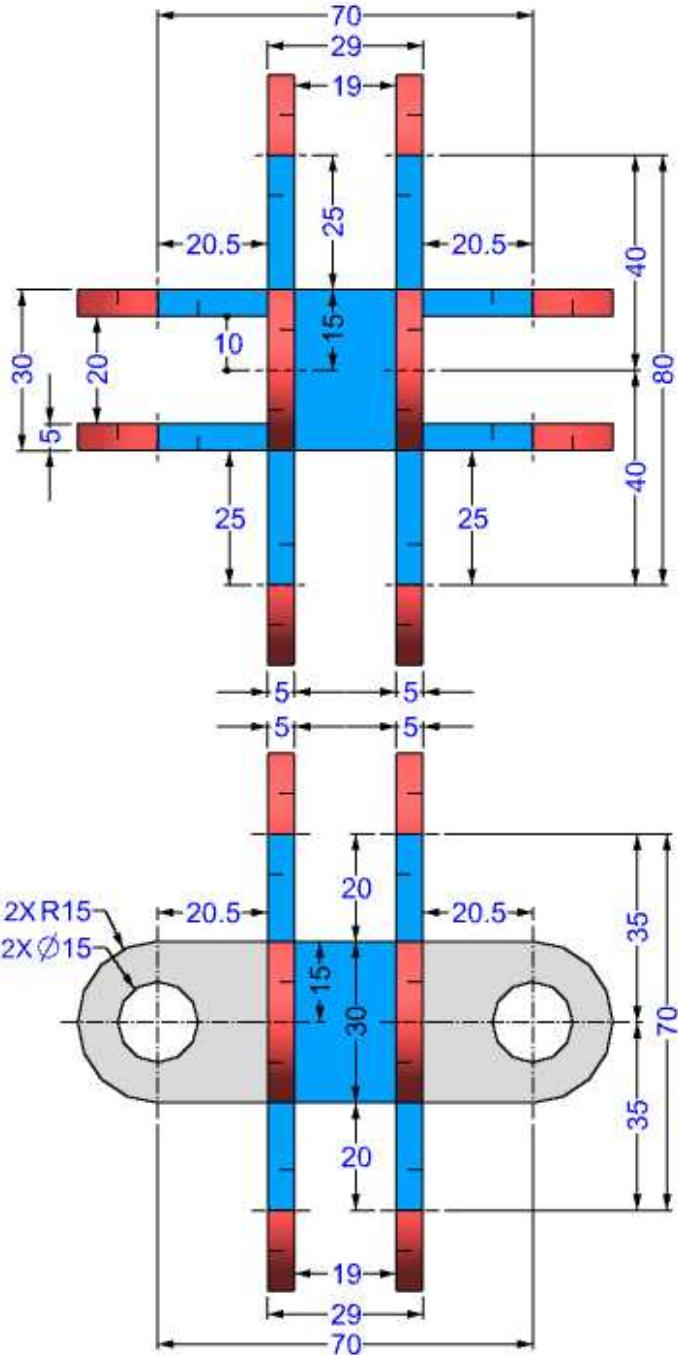
# EXERCISE-168



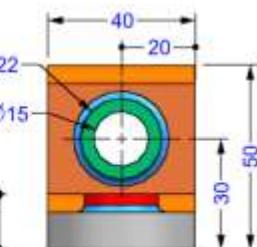
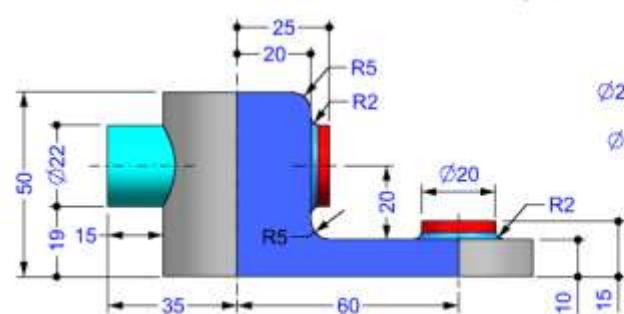
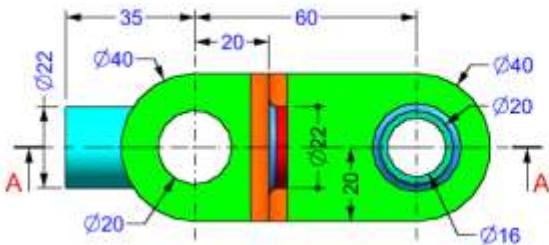
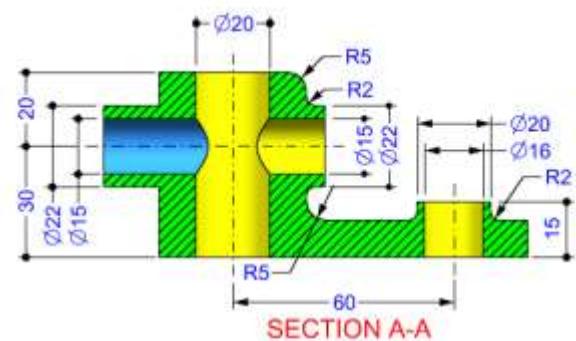
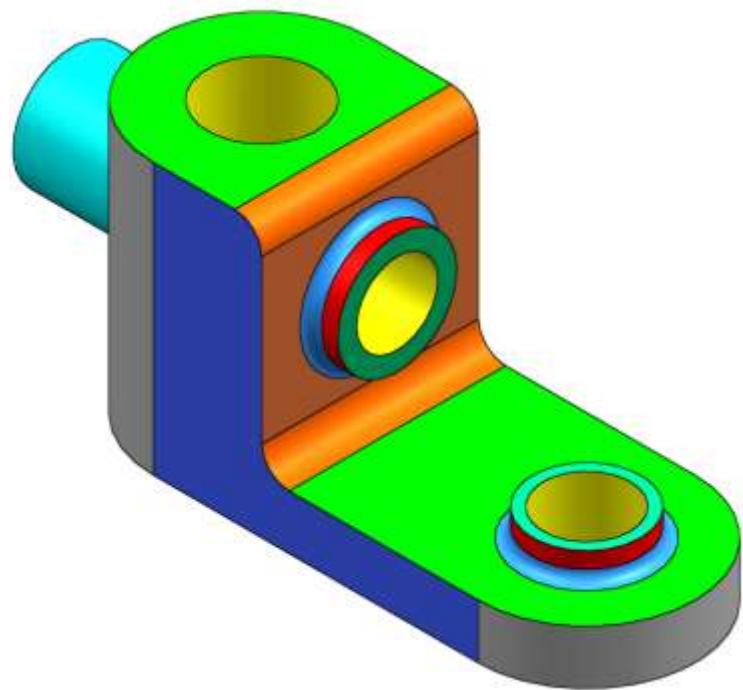
# **EXERCISE-169**



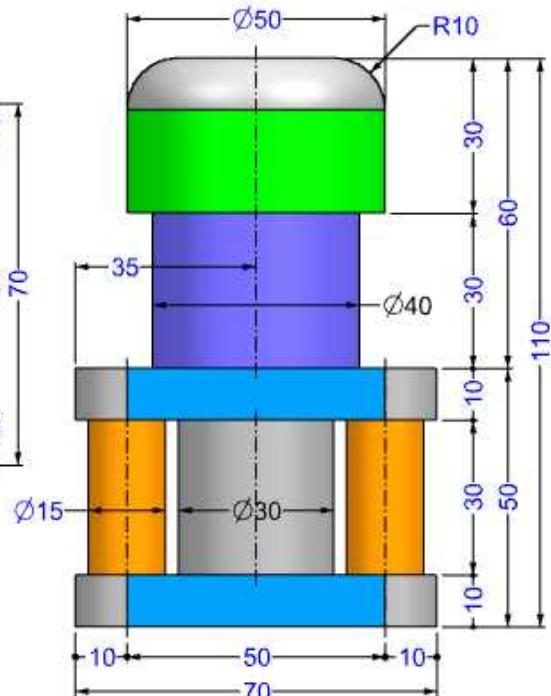
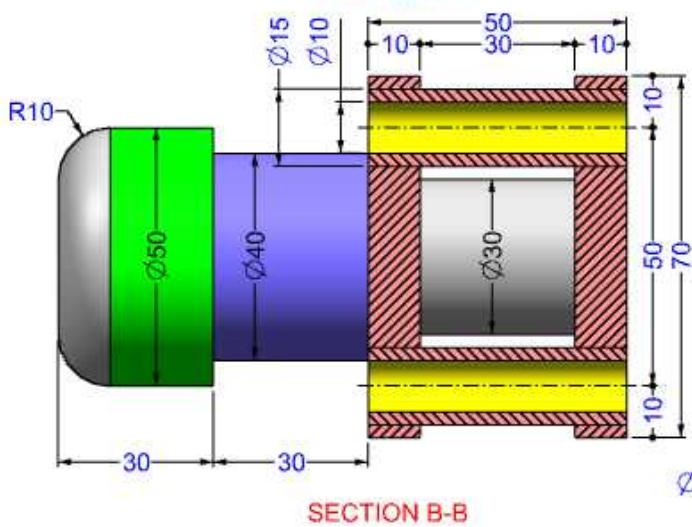
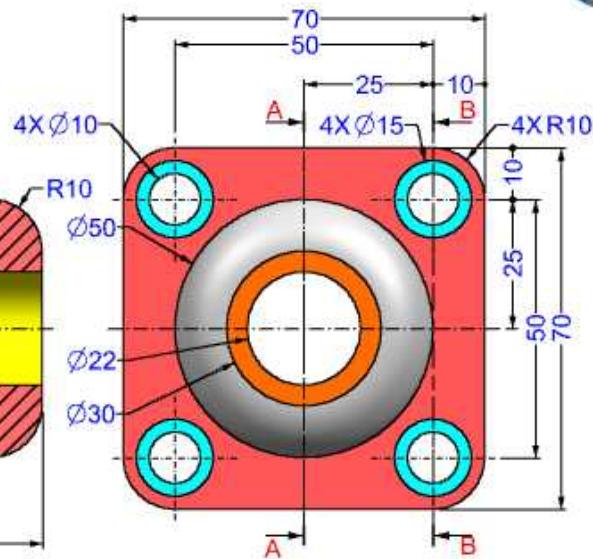
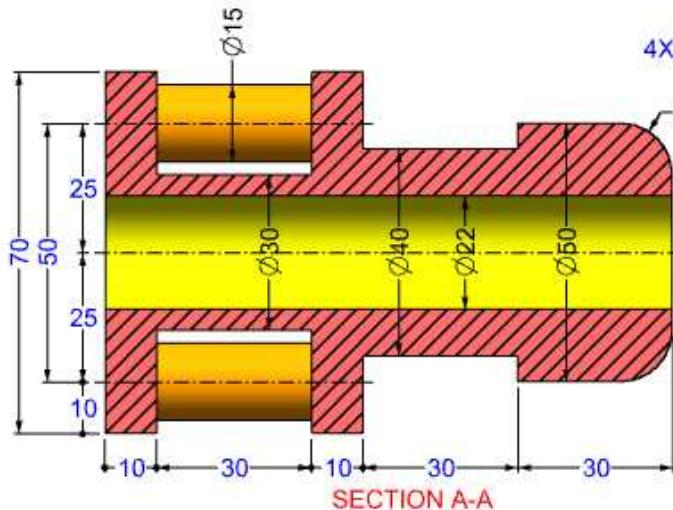
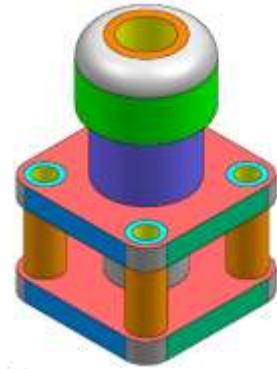
# **EXERCISE-170**



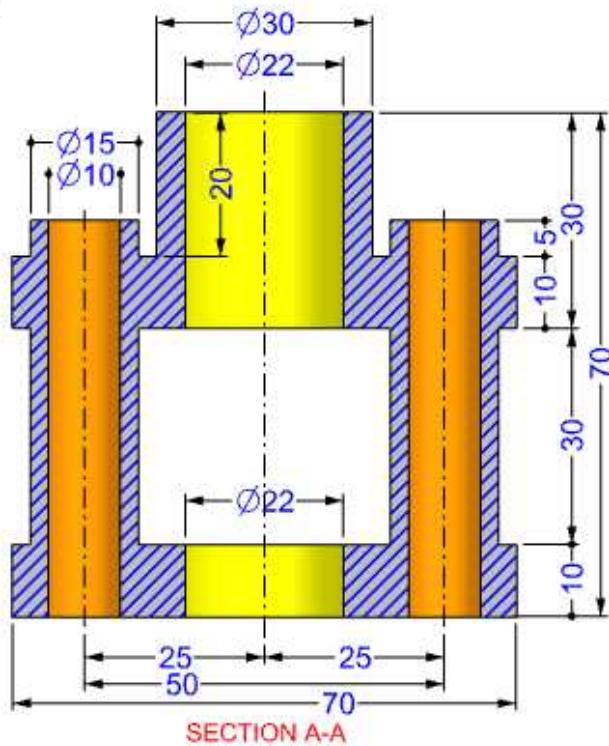
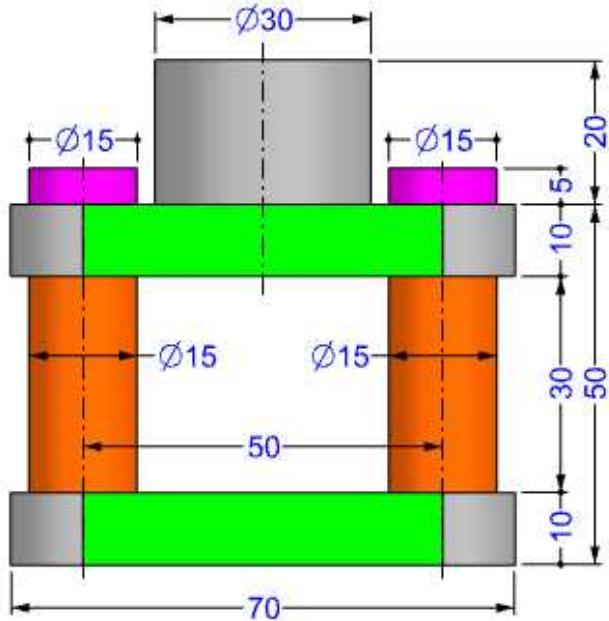
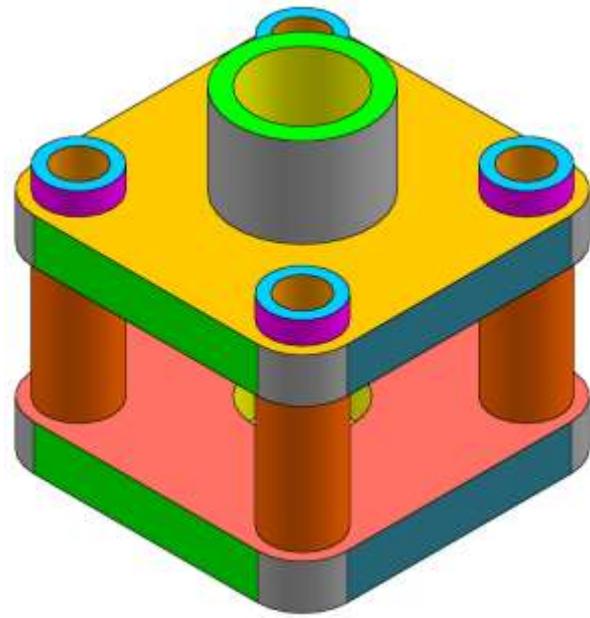
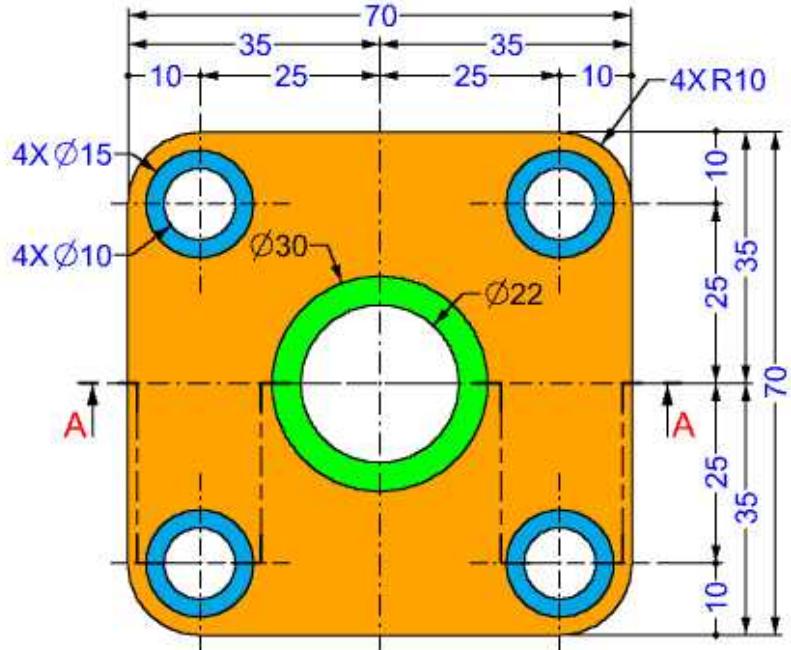
# EXERCISE-171



## EXERCISE-172

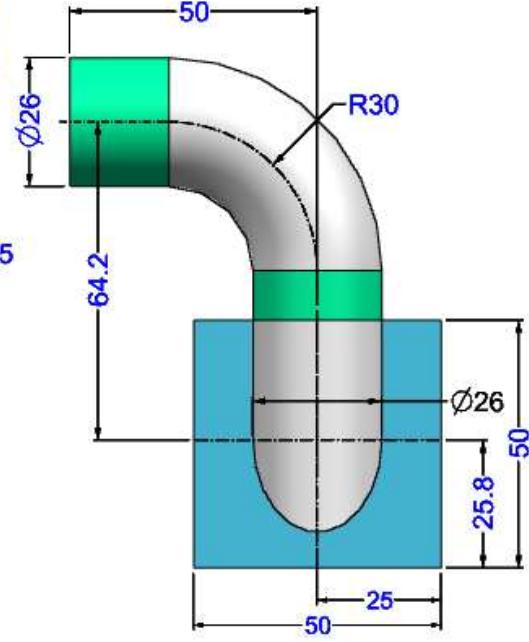
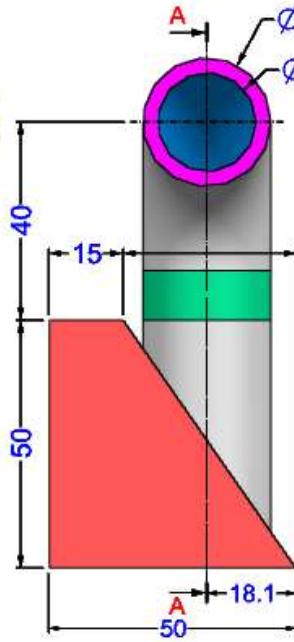
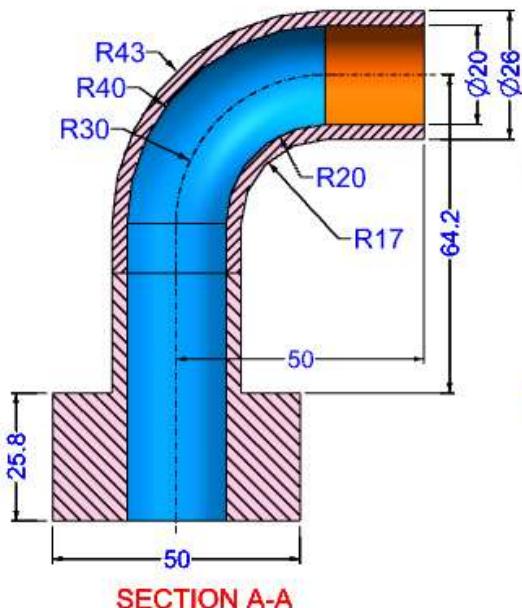
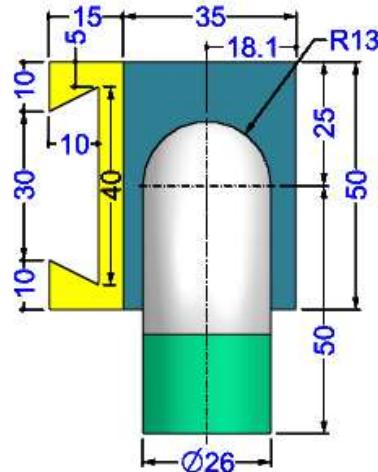
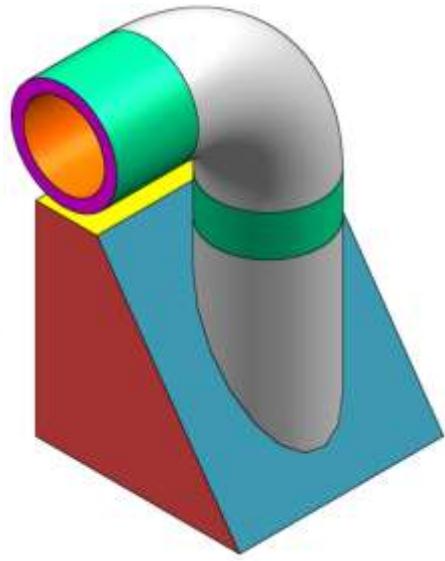


## EXERCISE-173

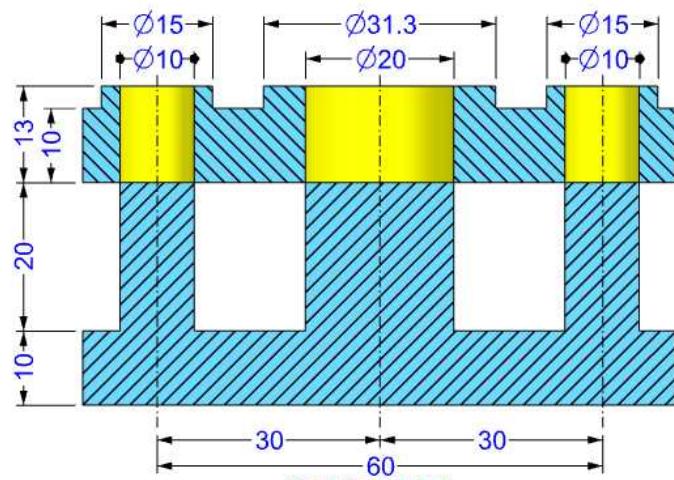
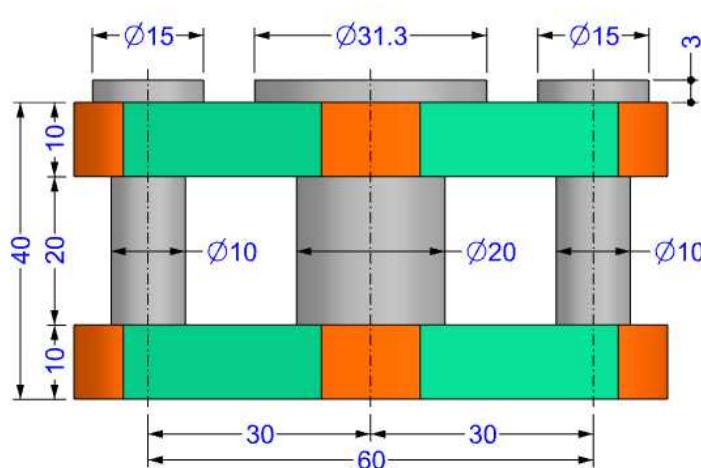
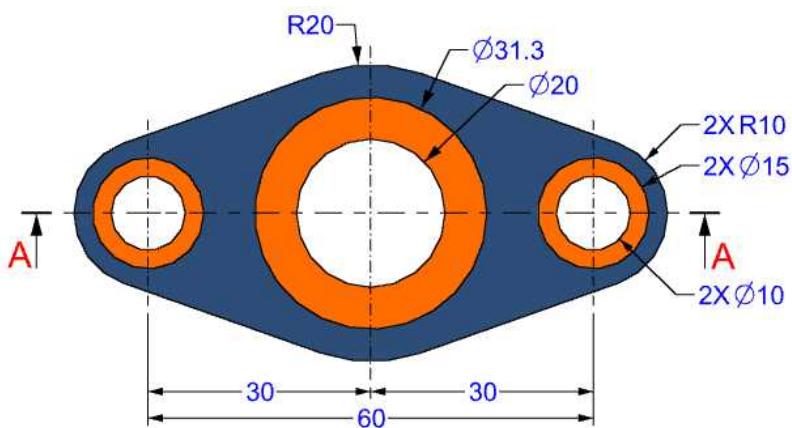
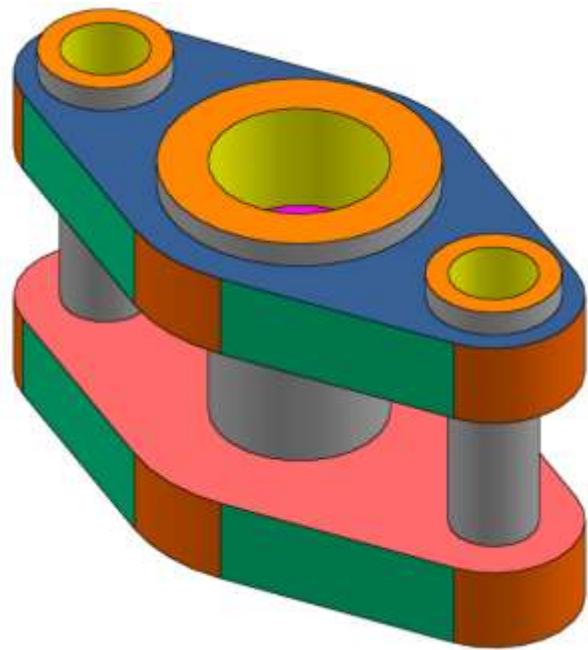


SECTION A-A

# EXERCISE-174

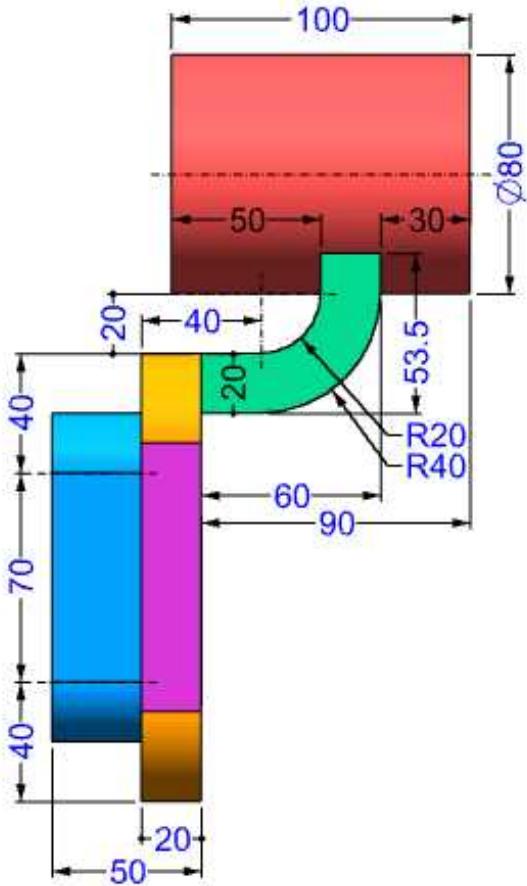
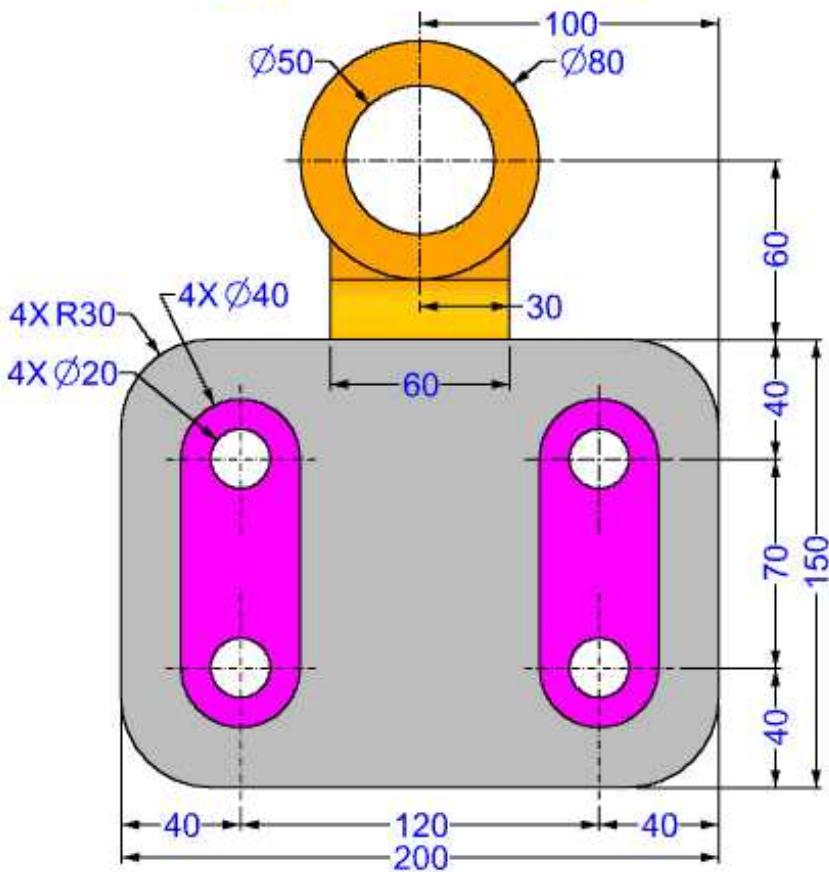
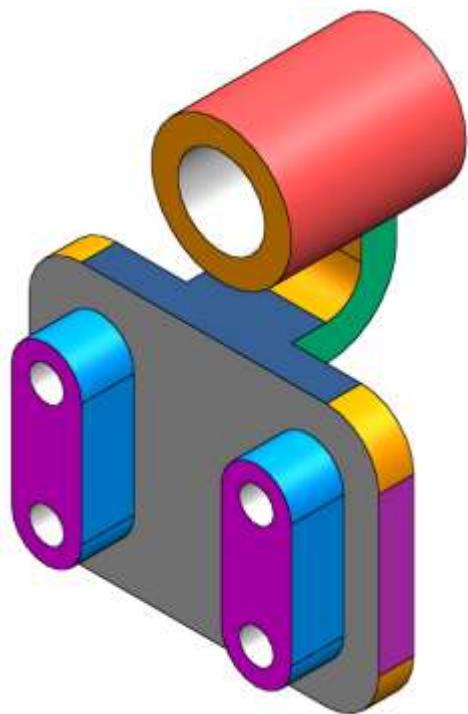
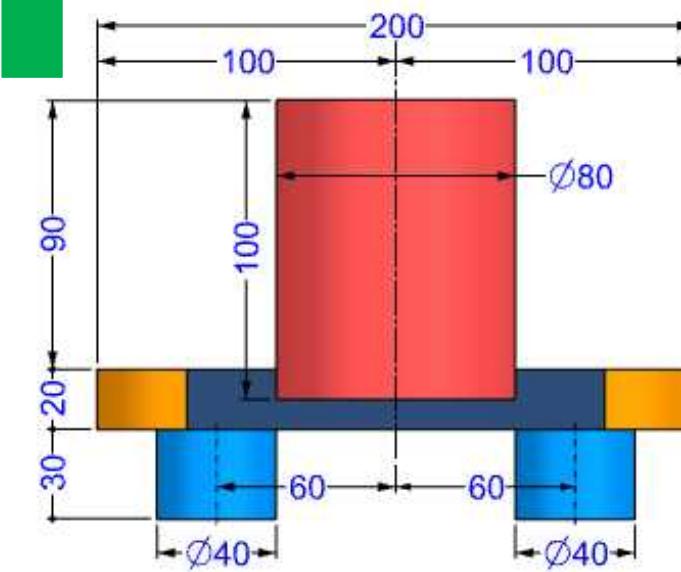


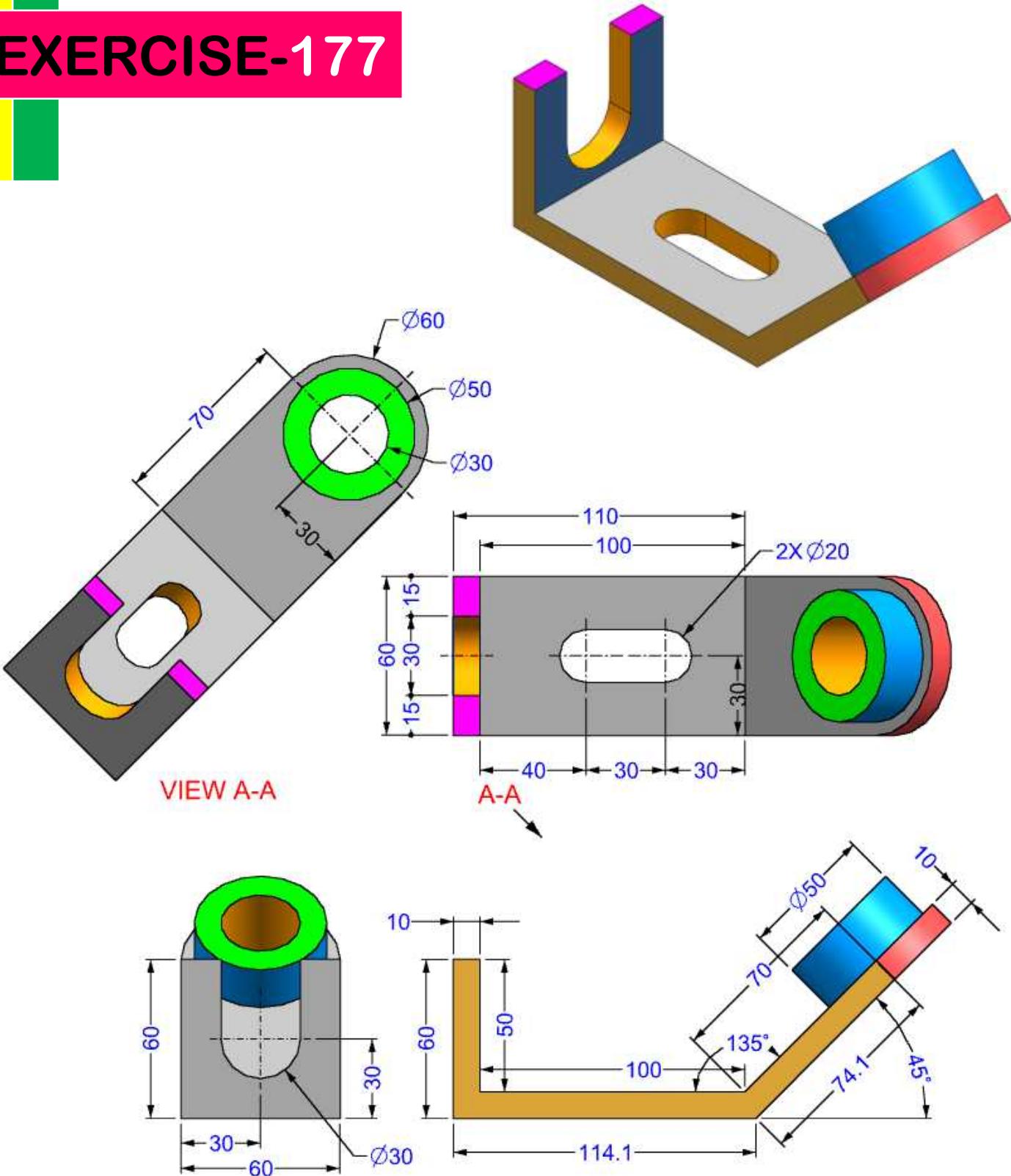
# EXERCISE-175



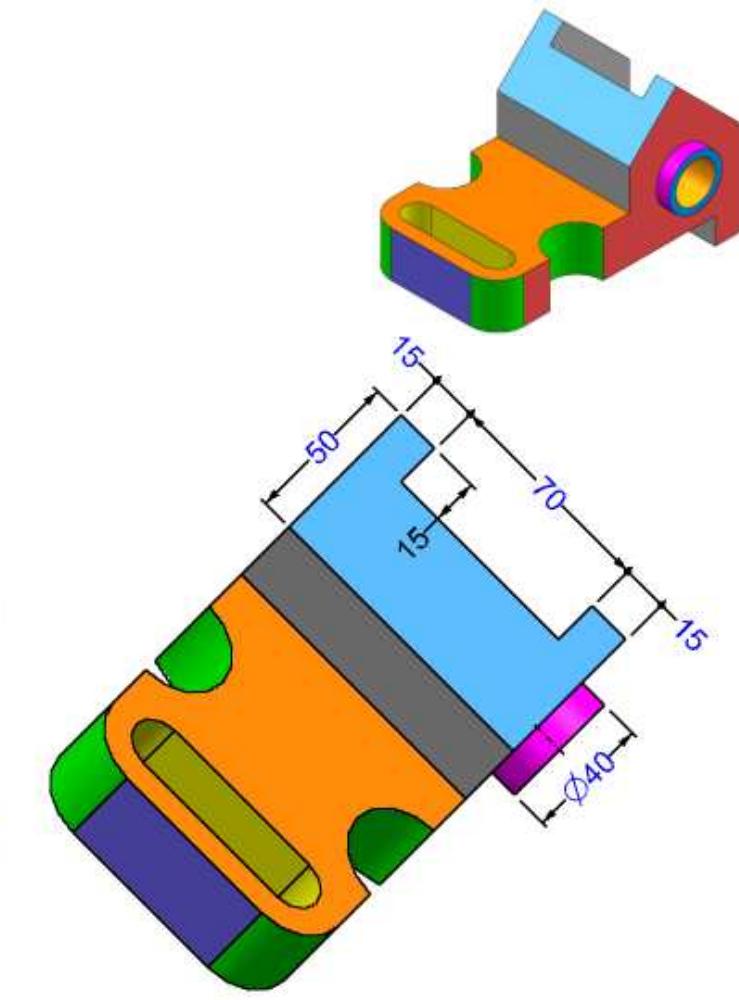
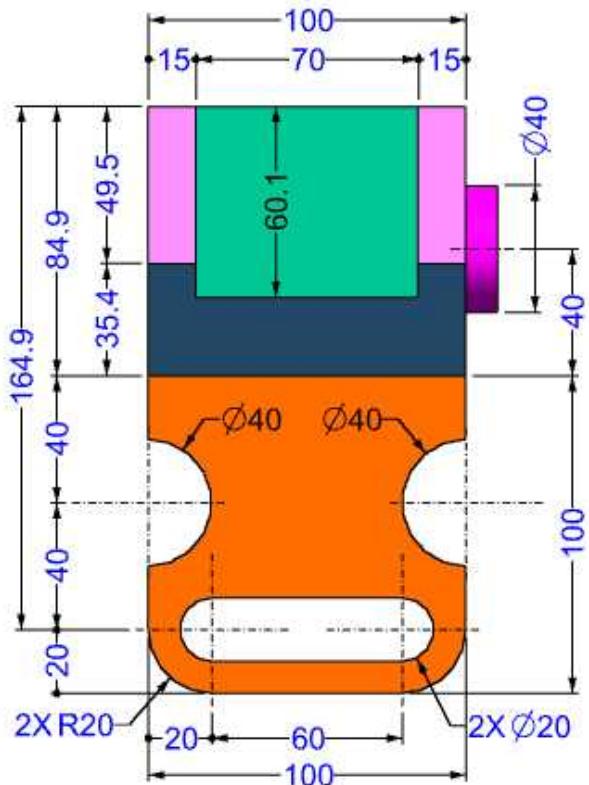
SECTION A-A

## EXERCISE-176

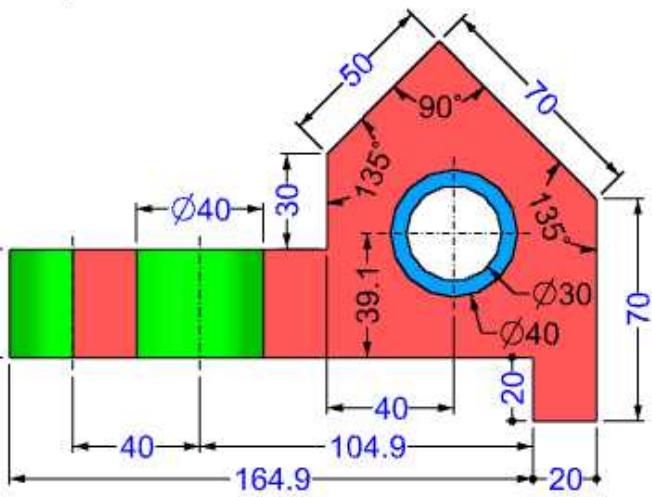
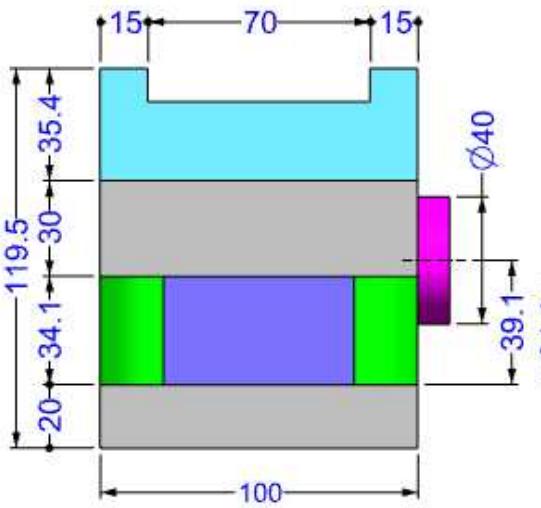


**EXERCISE-177**

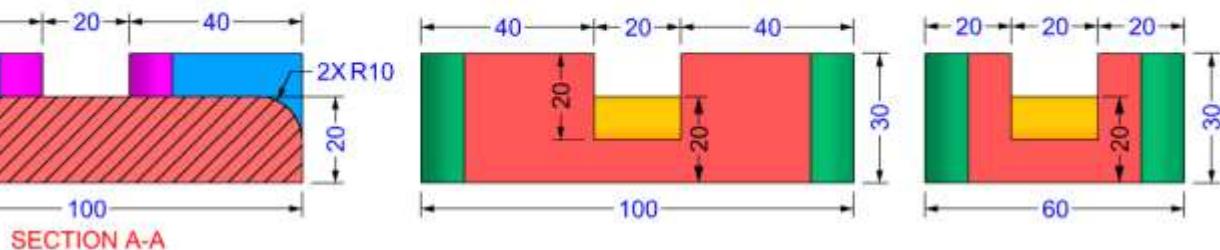
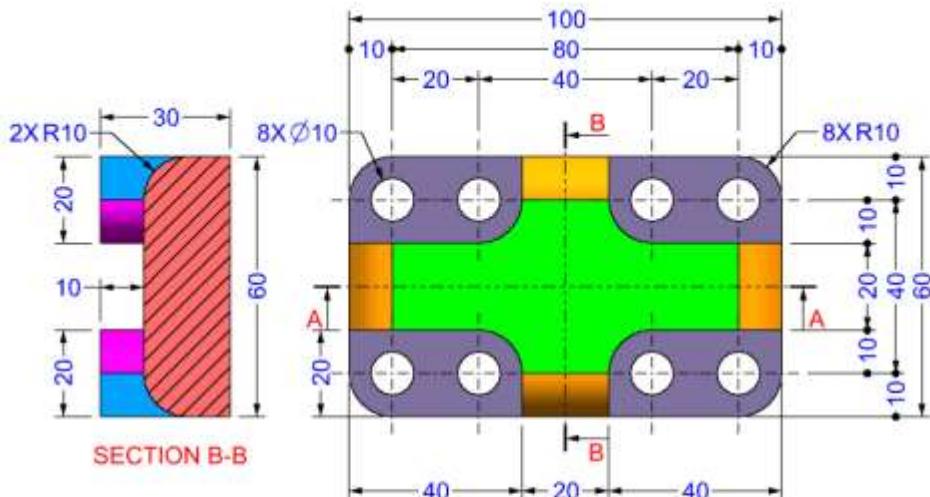
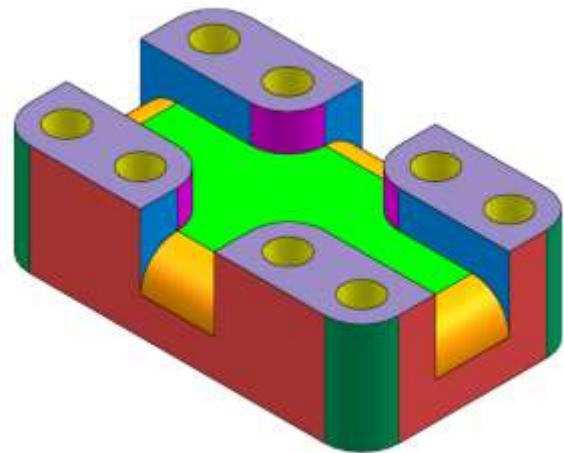
# **EXERCISE-178**



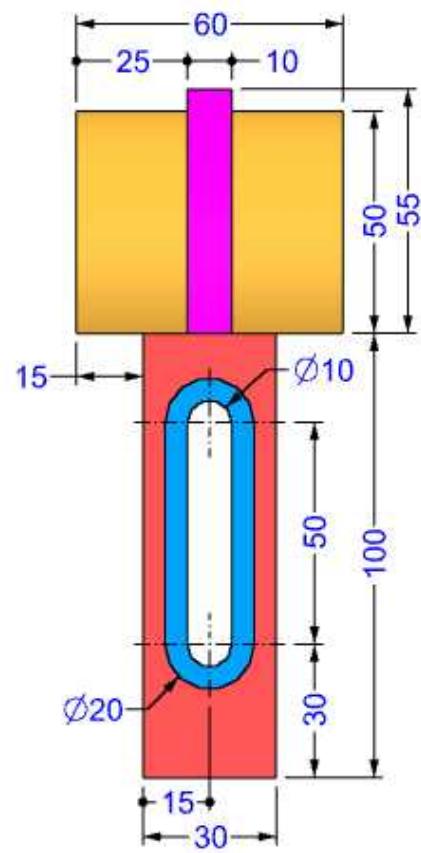
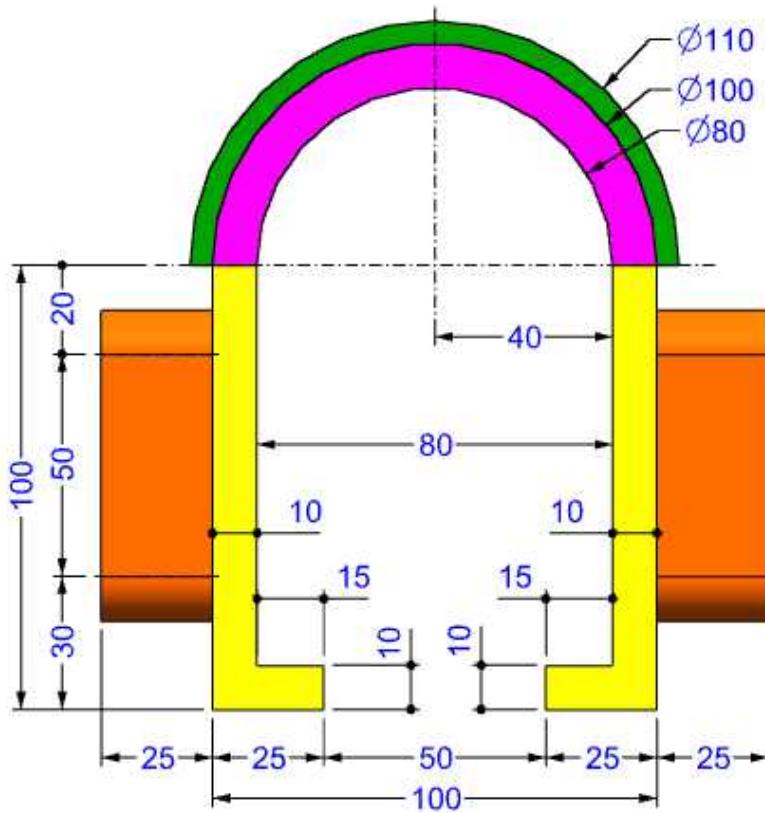
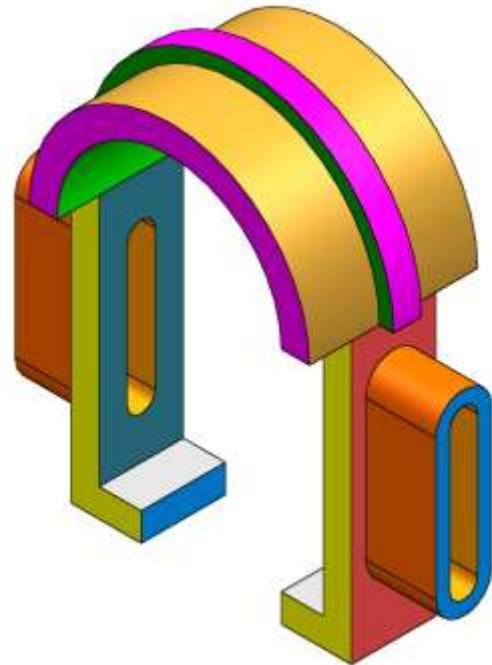
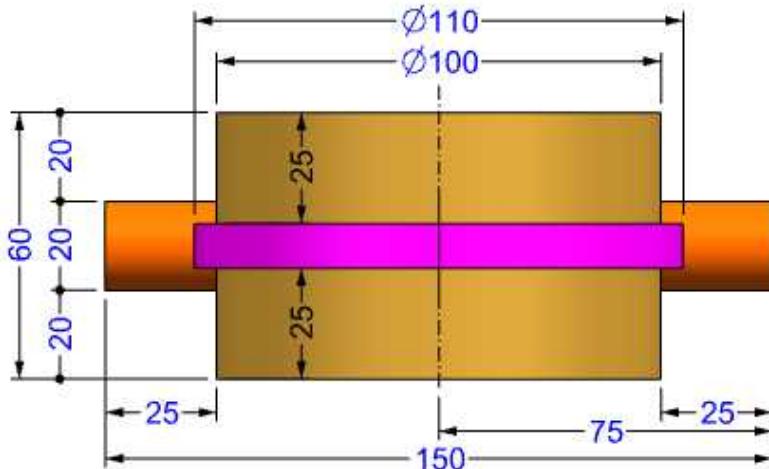
**VIEW A-A**



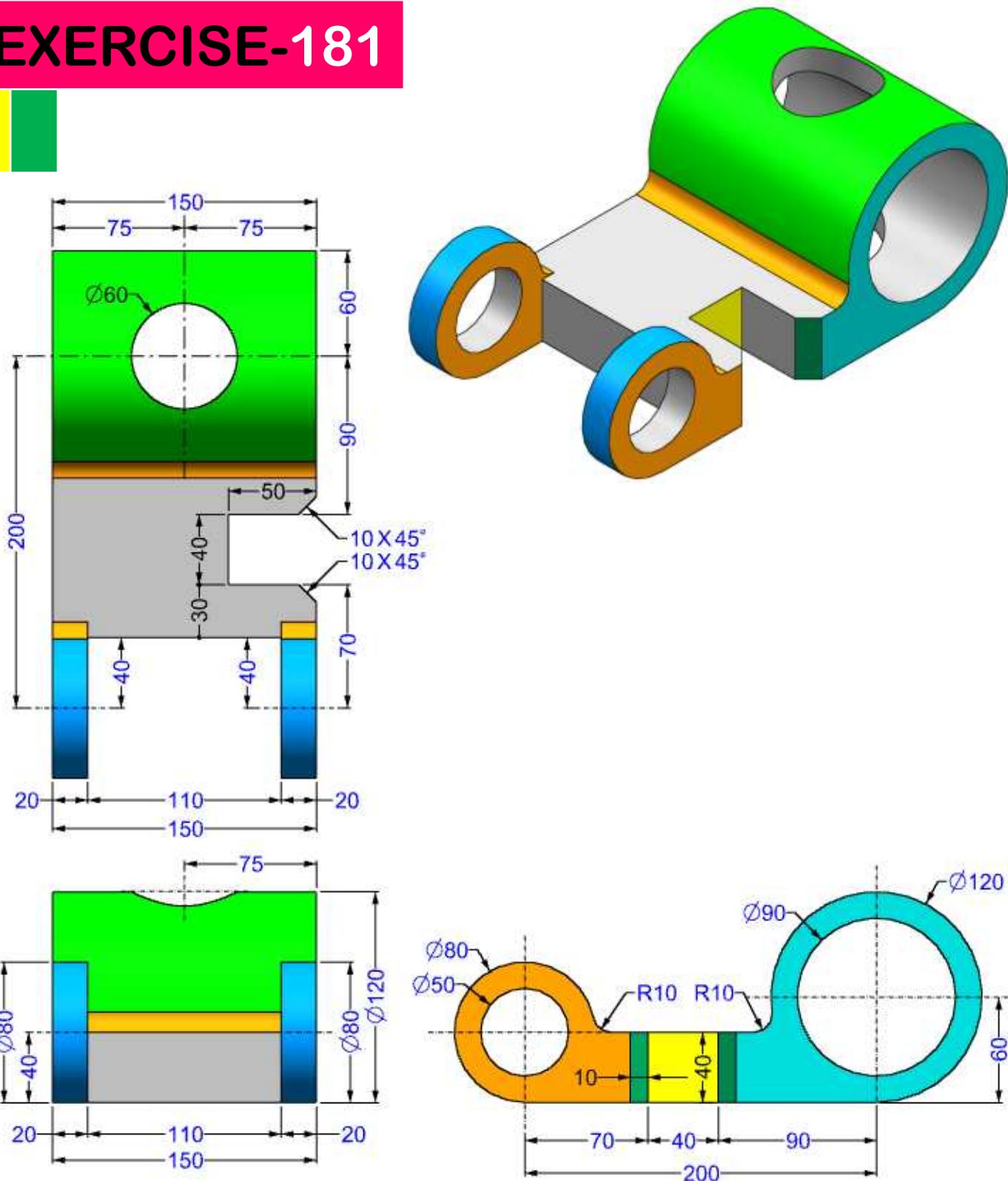
# EXERCISE-179



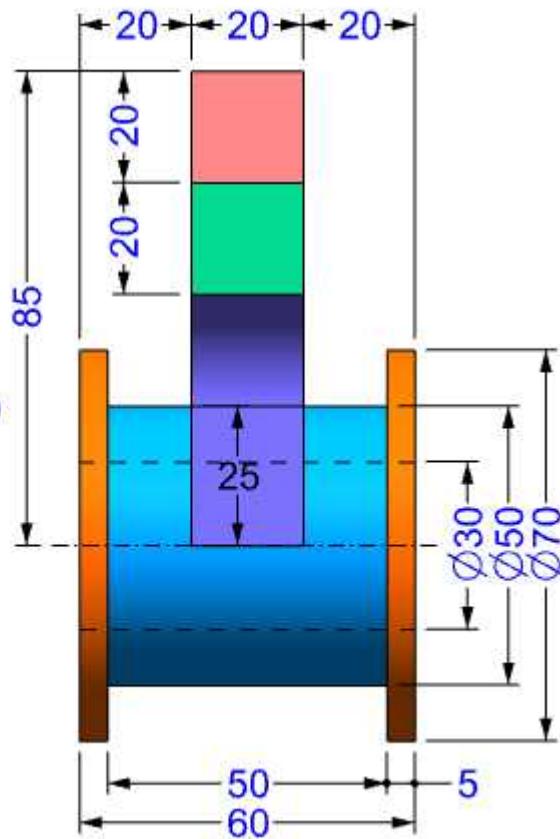
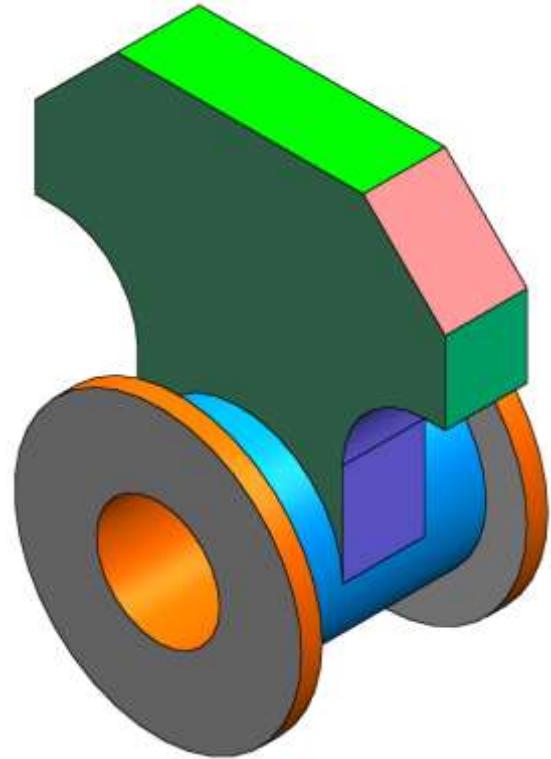
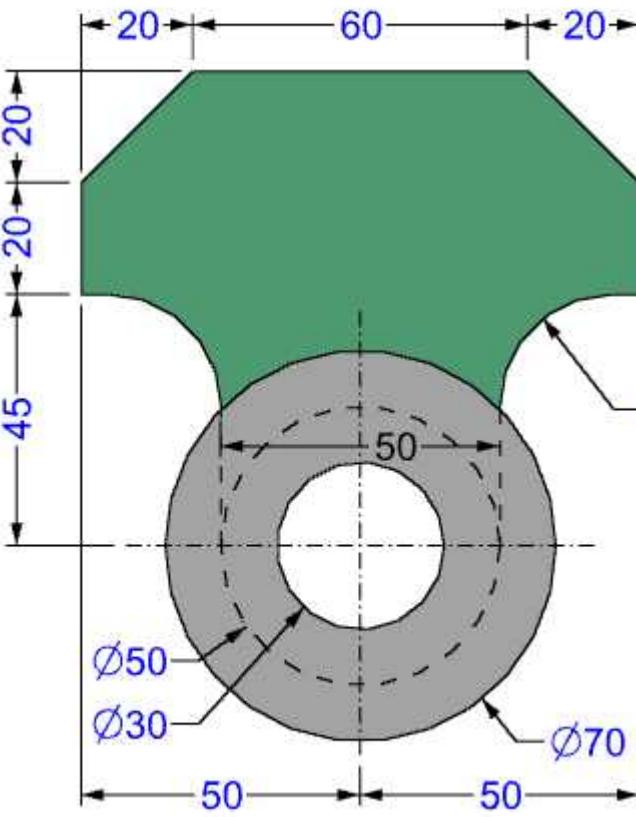
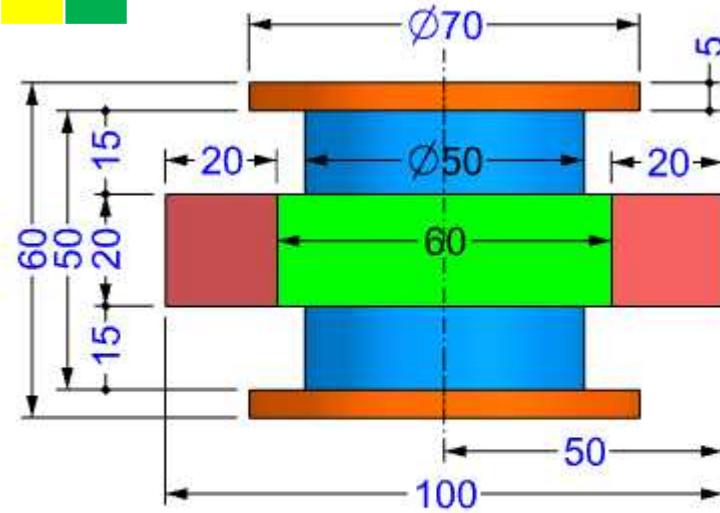
# EXERCISE-180



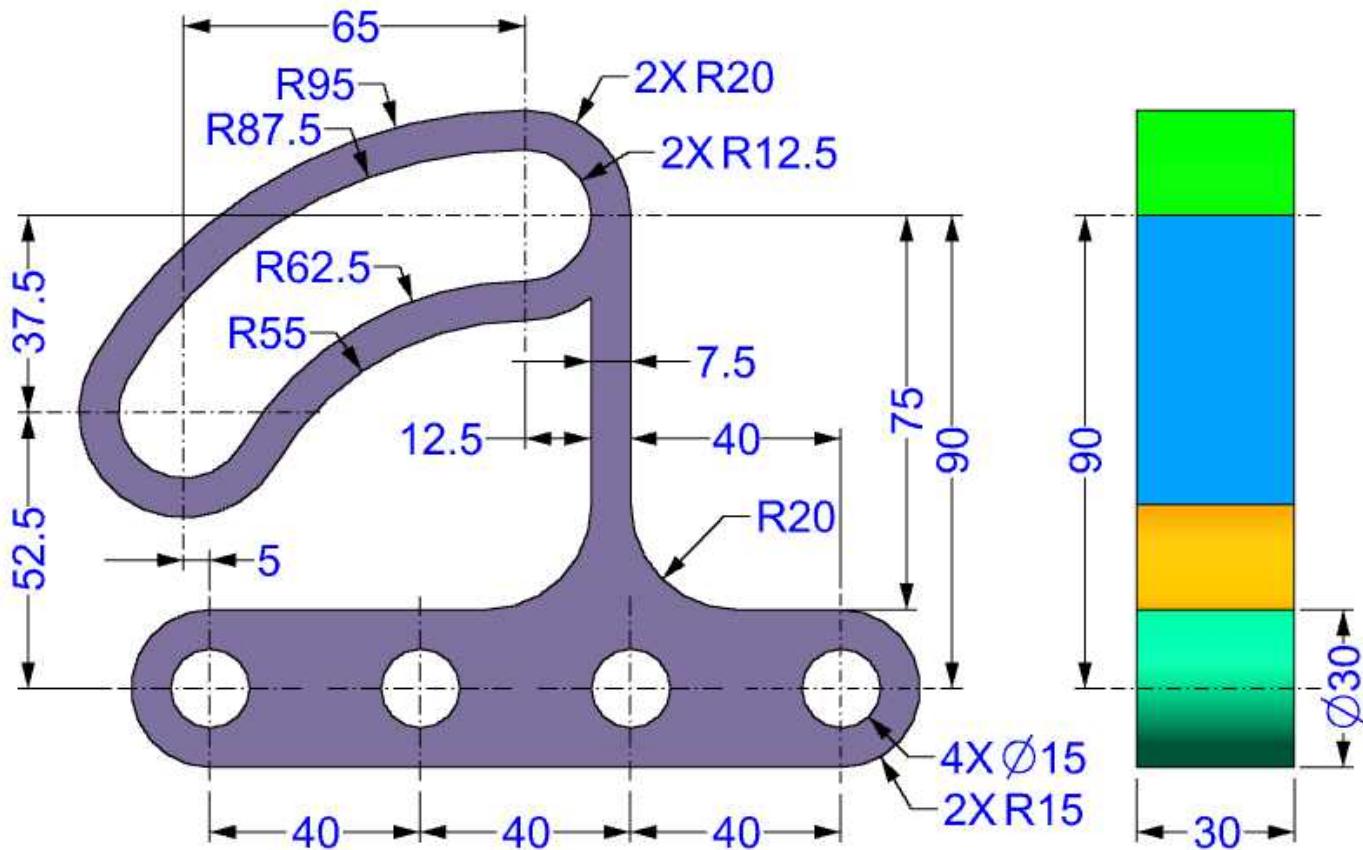
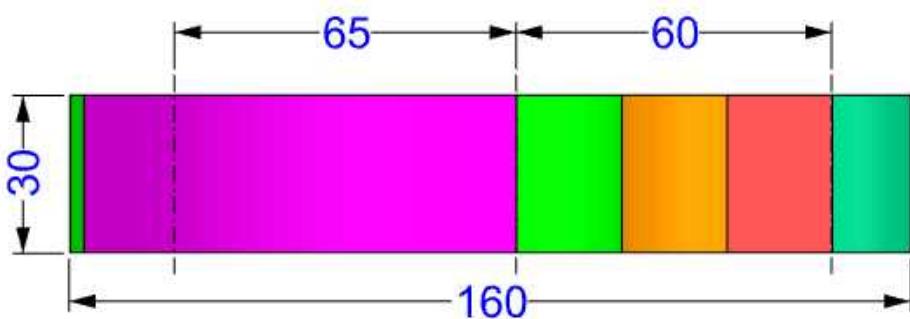
# **EXERCISE-181**



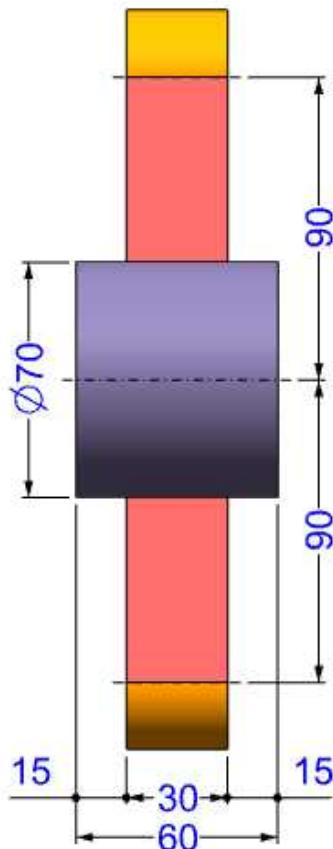
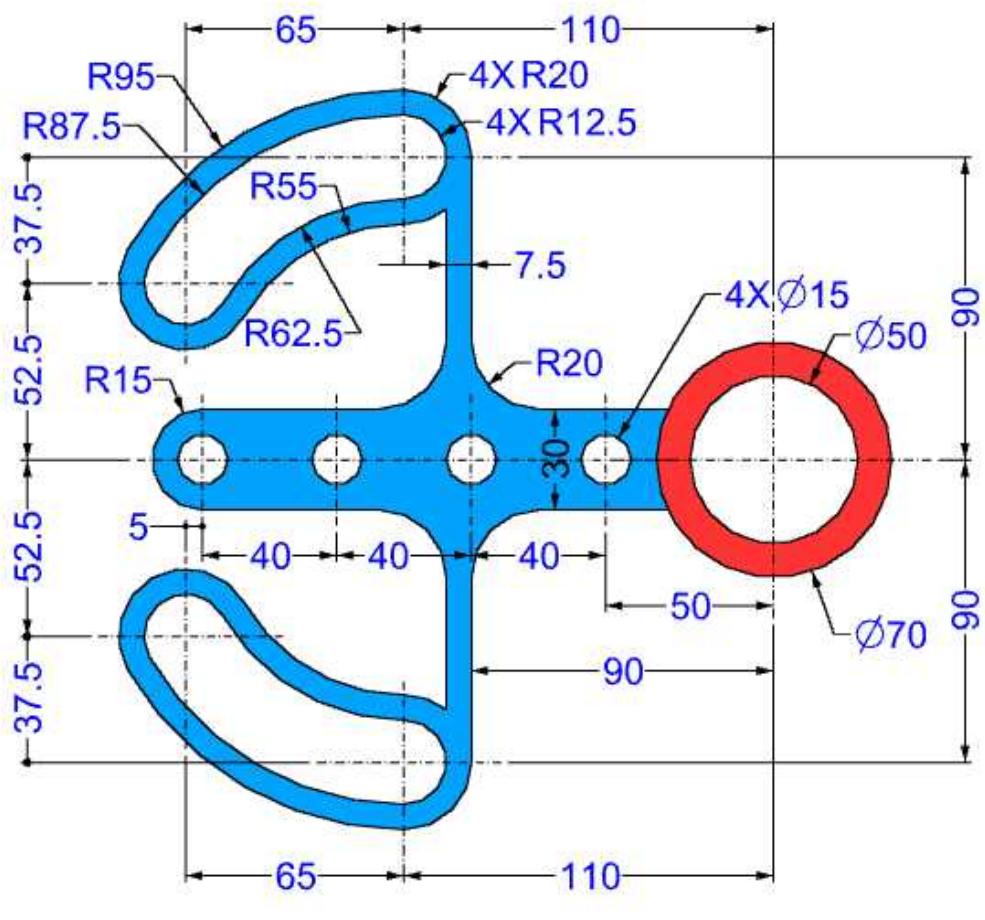
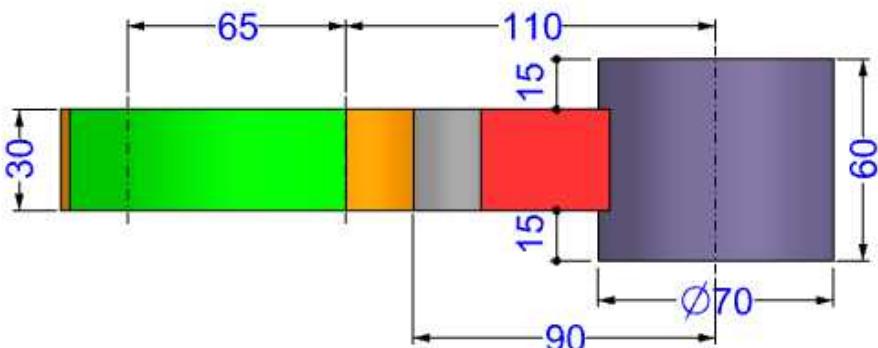
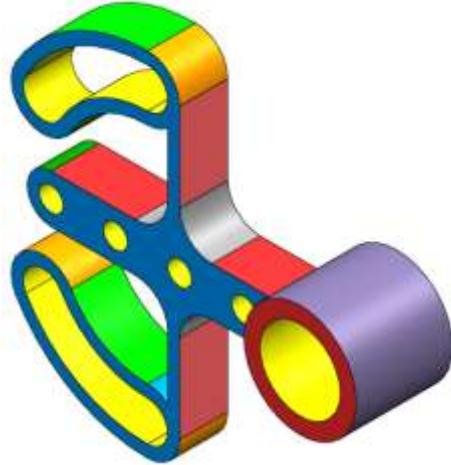
## EXERCISE-182



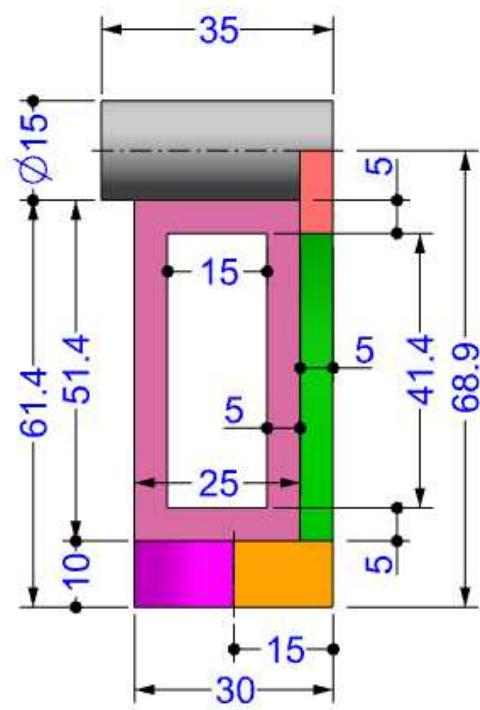
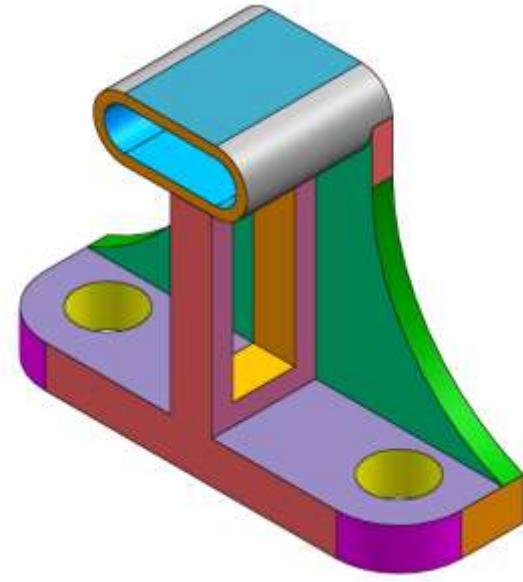
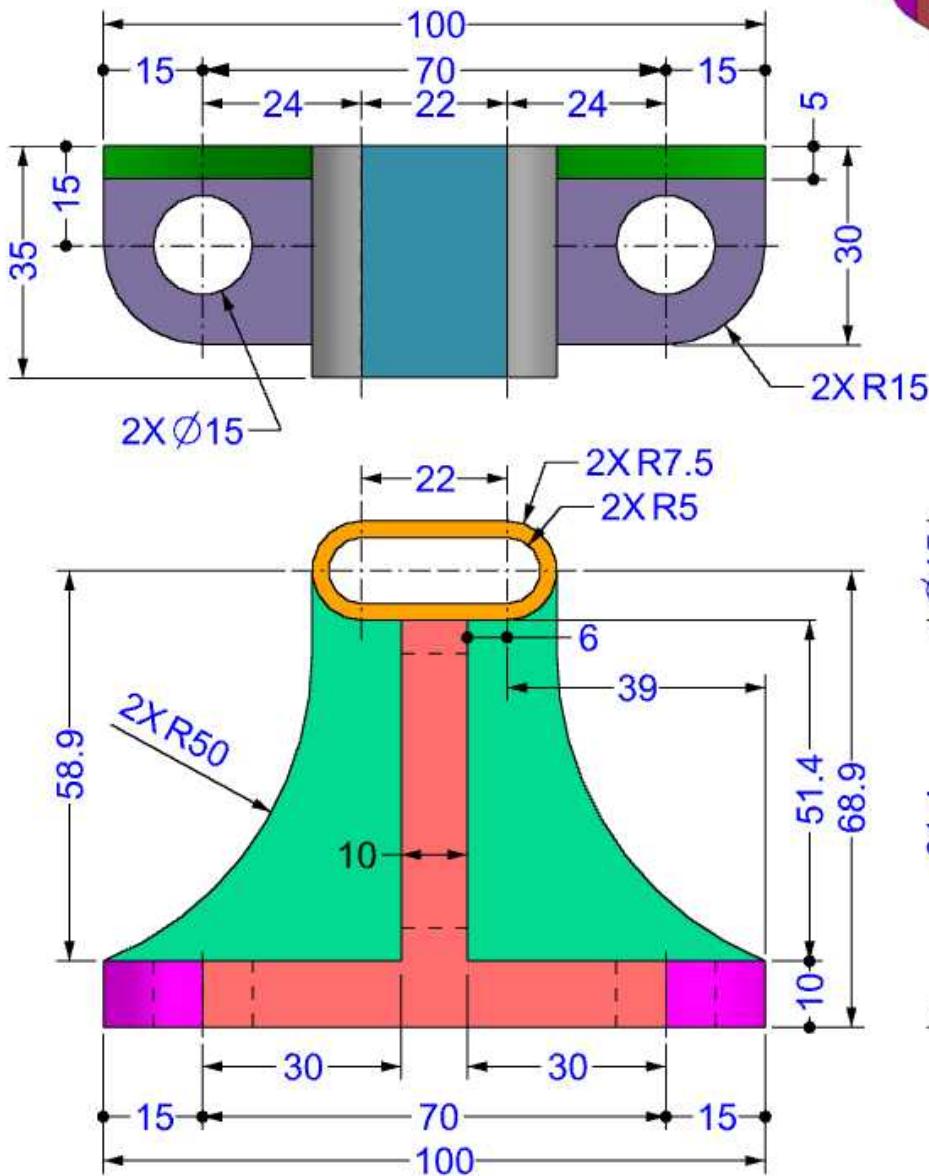
# EXERCISE-183



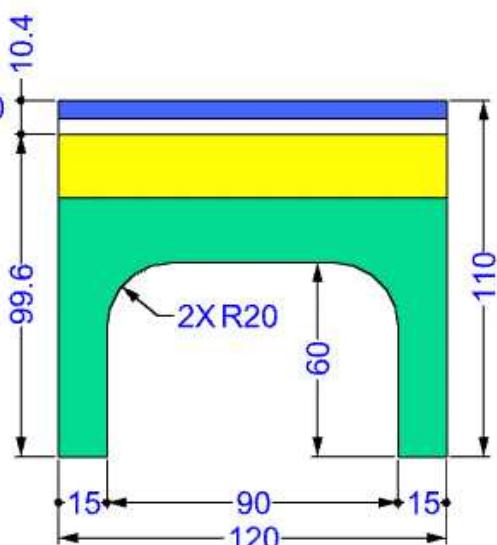
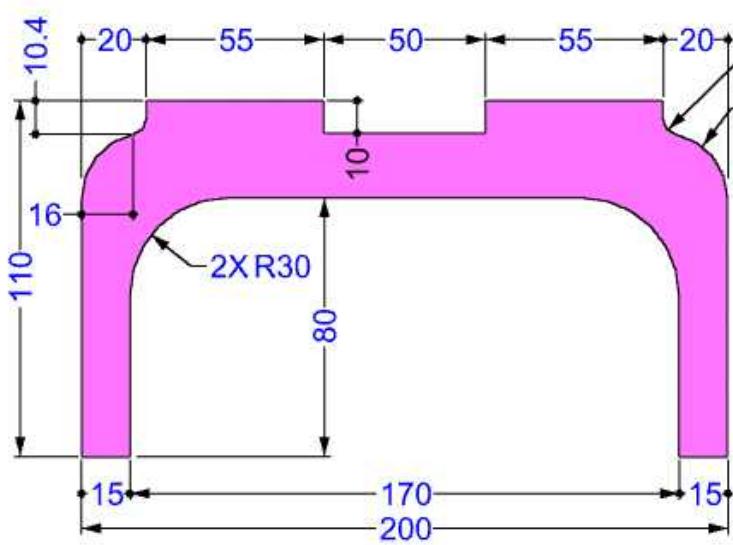
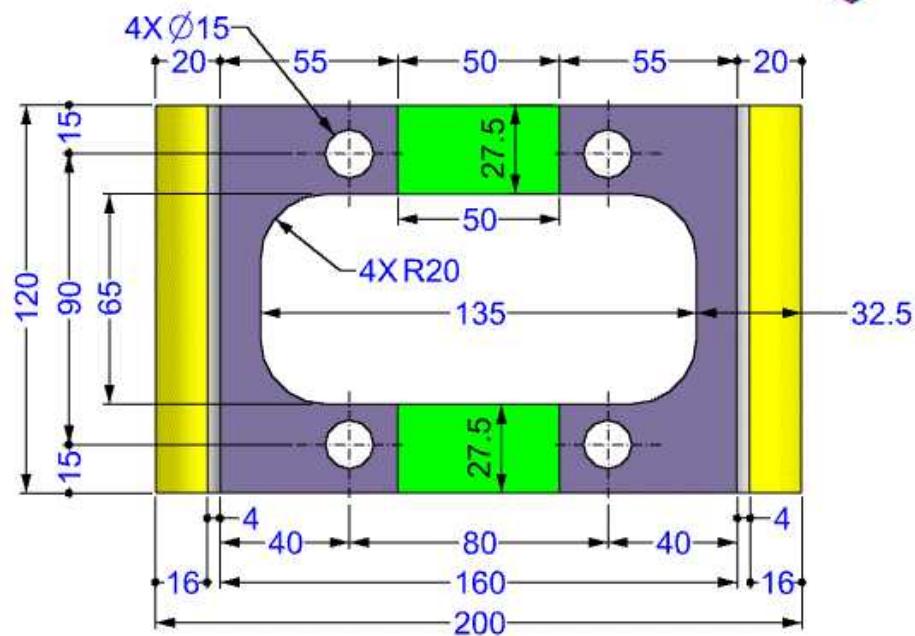
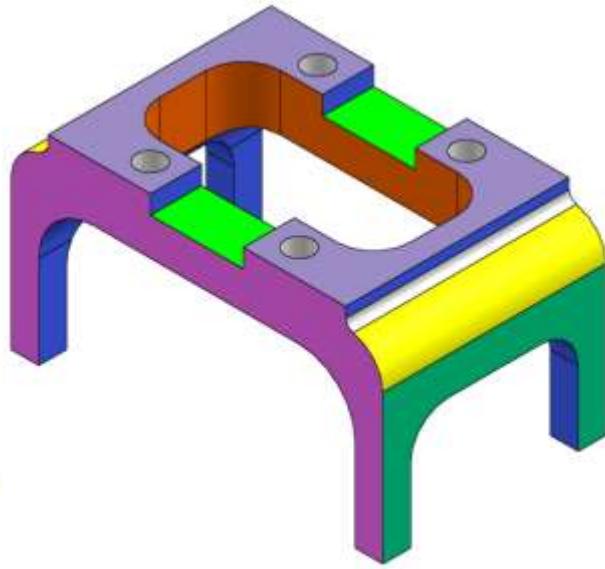
# EXERCISE-184



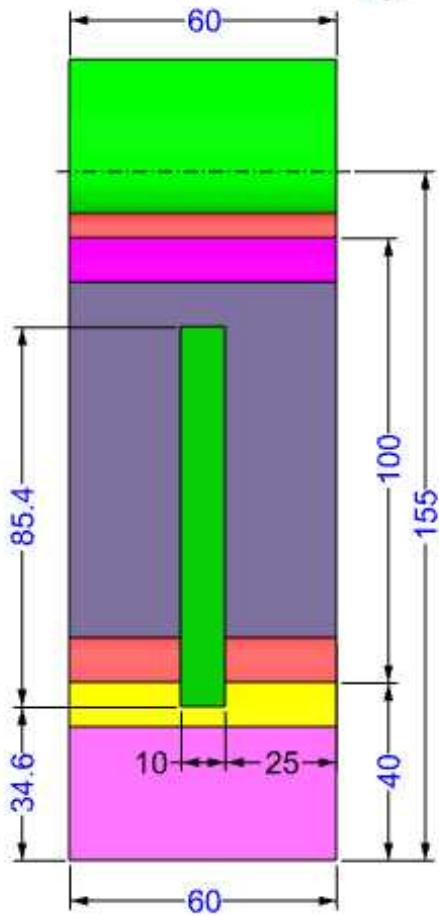
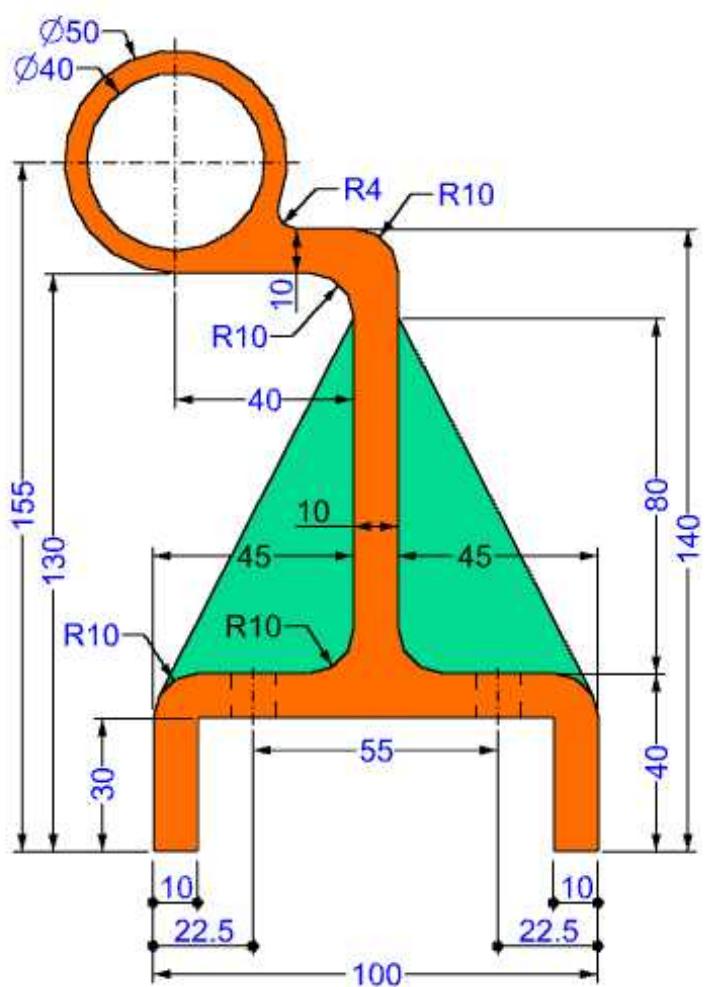
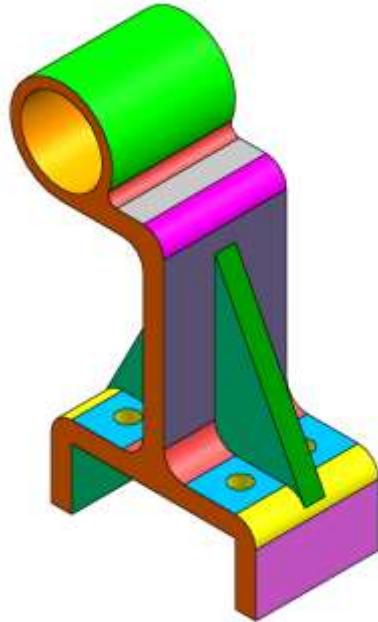
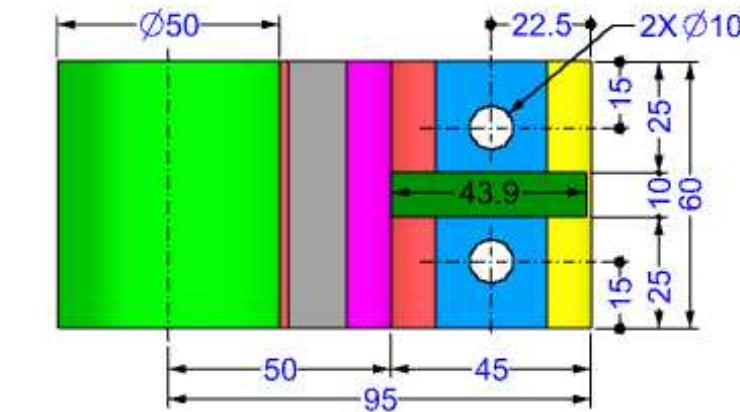
# EXERCISE-185



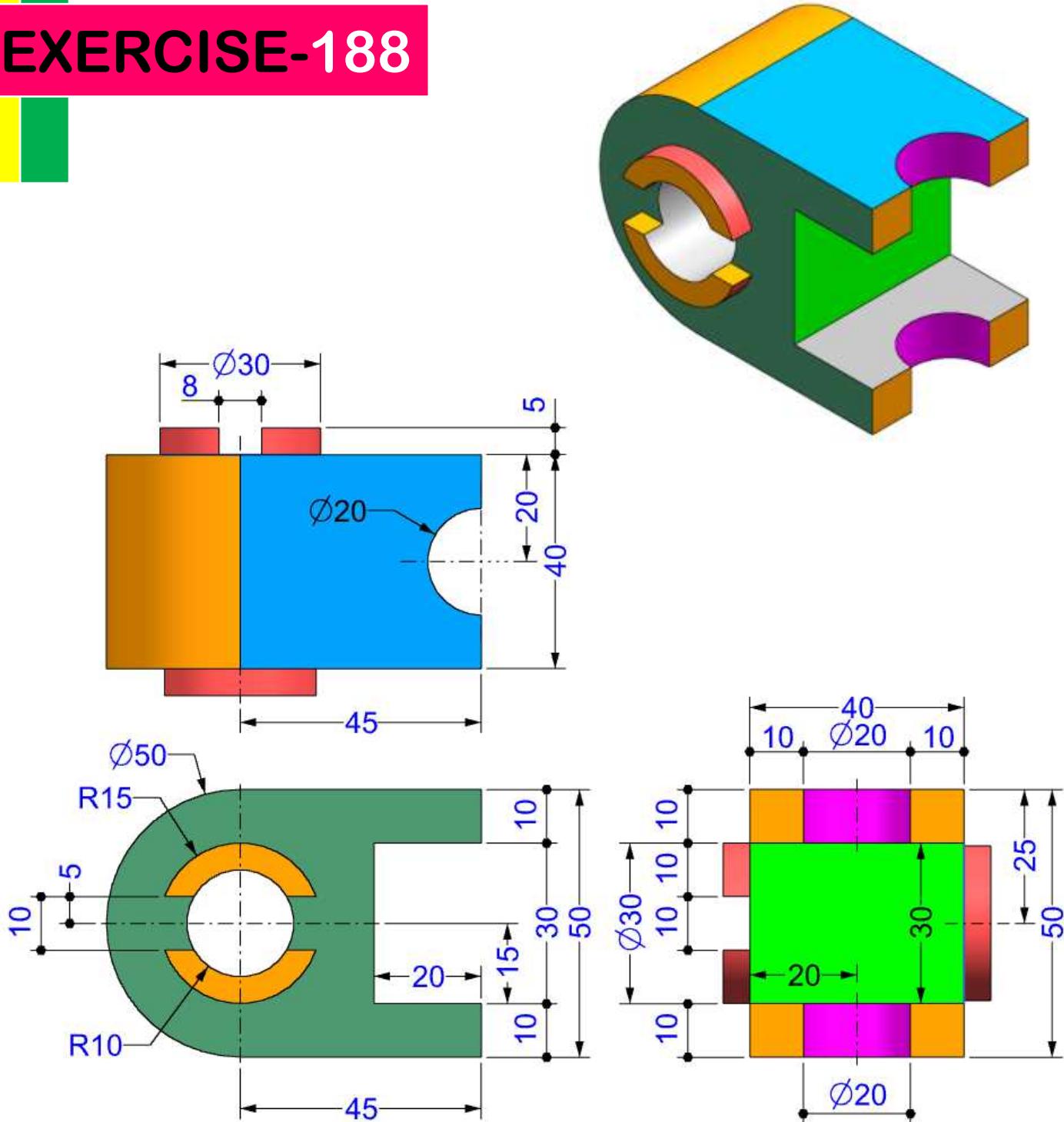
# EXERCISE-186



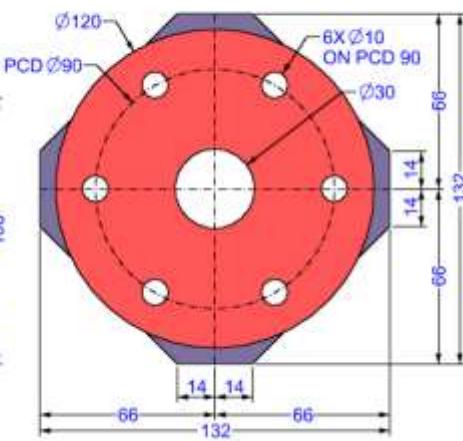
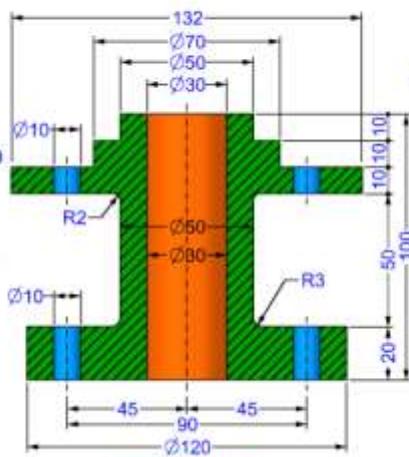
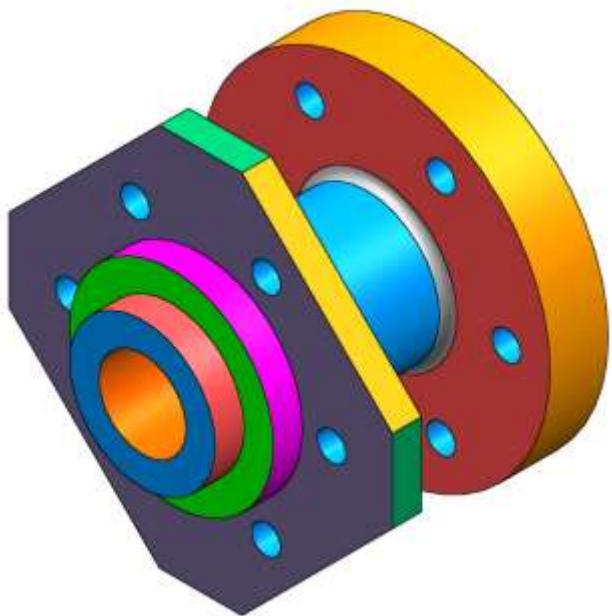
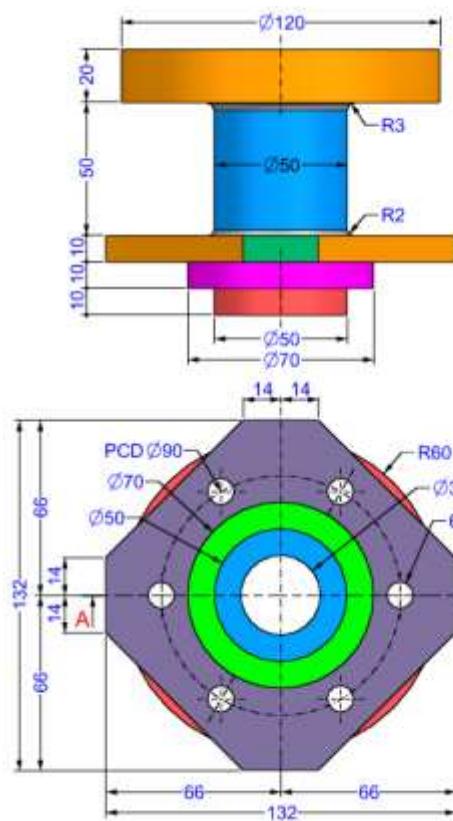
## EXERCISE-187



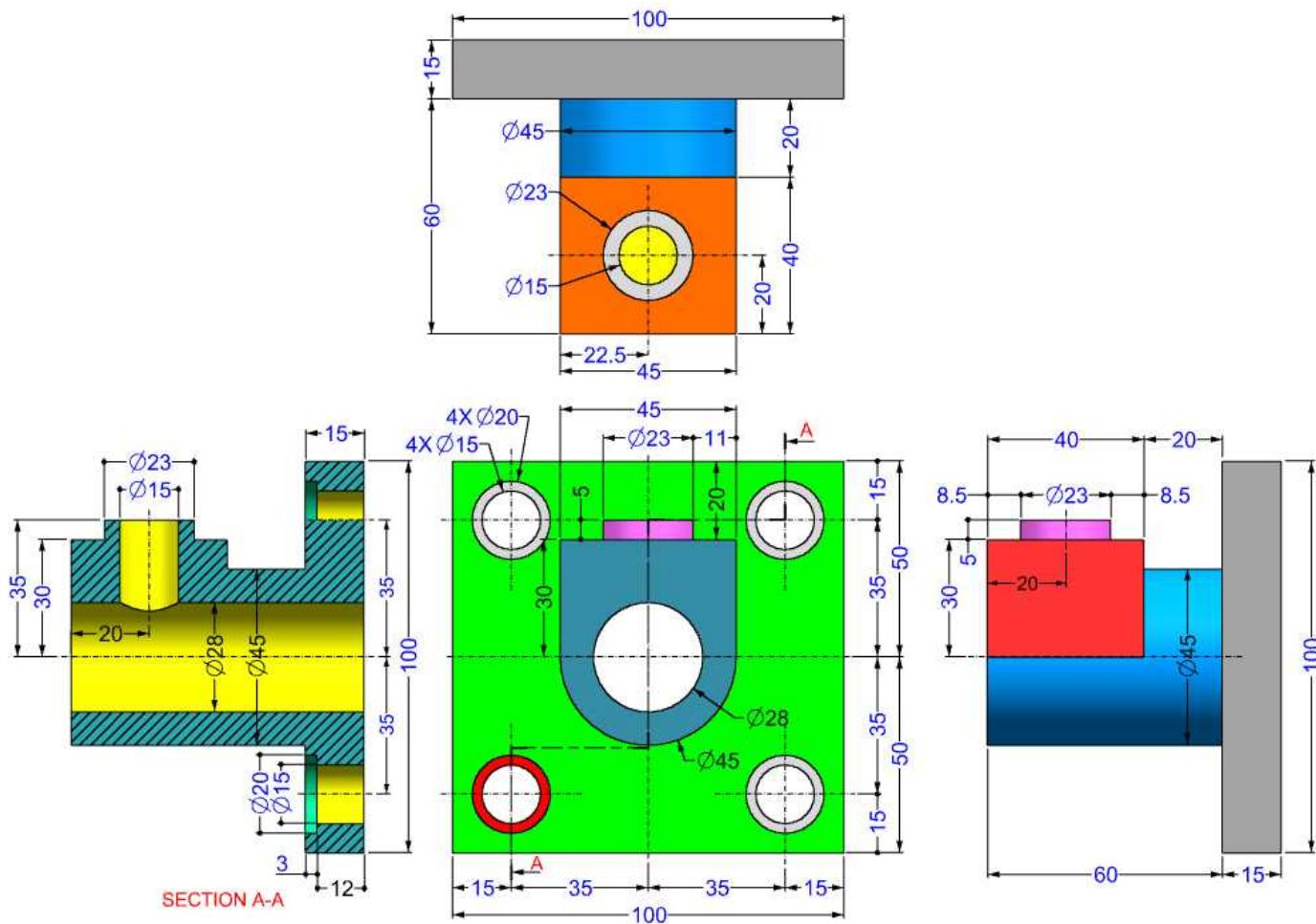
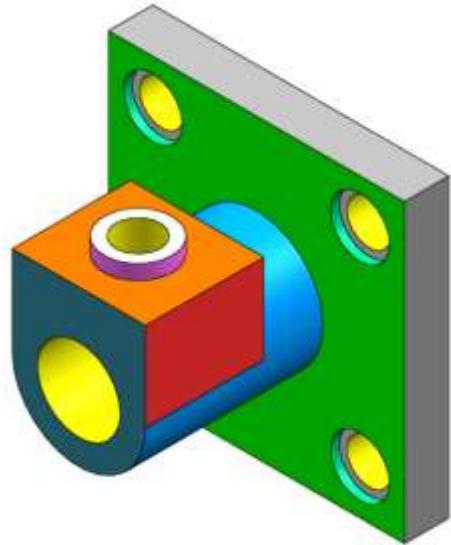
## EXERCISE-188



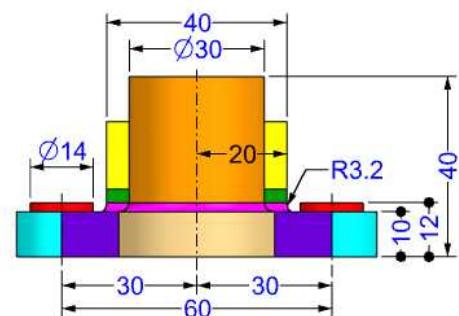
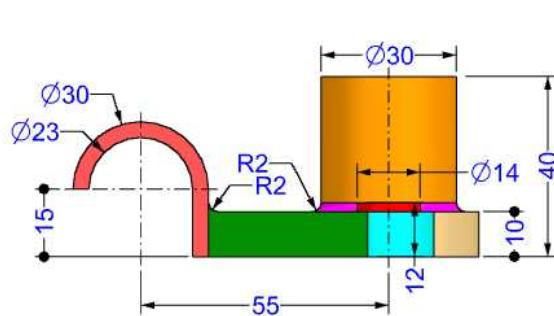
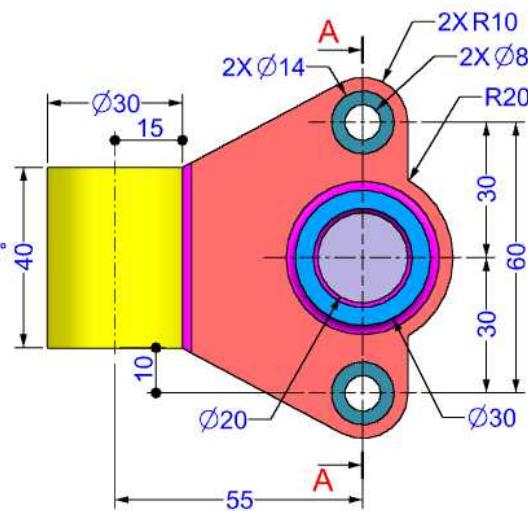
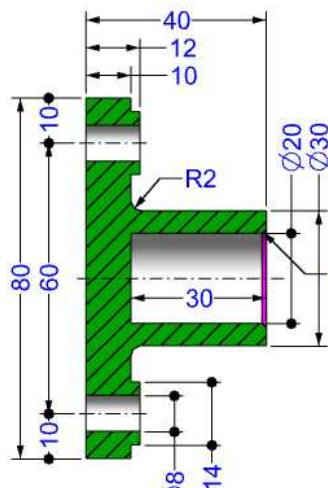
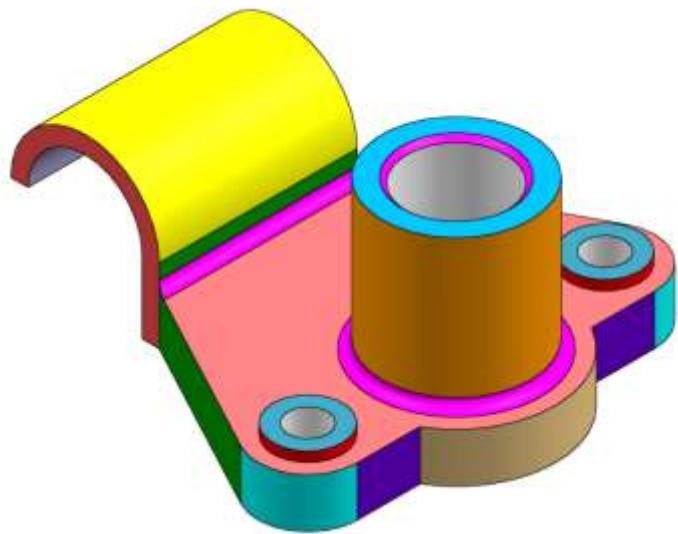
# **EXERCISE-189**



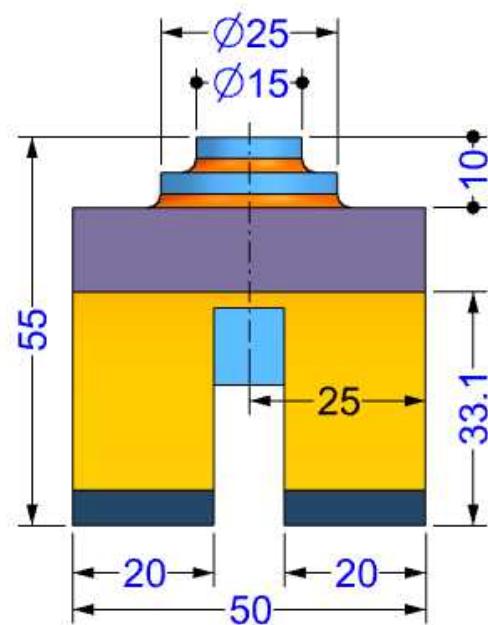
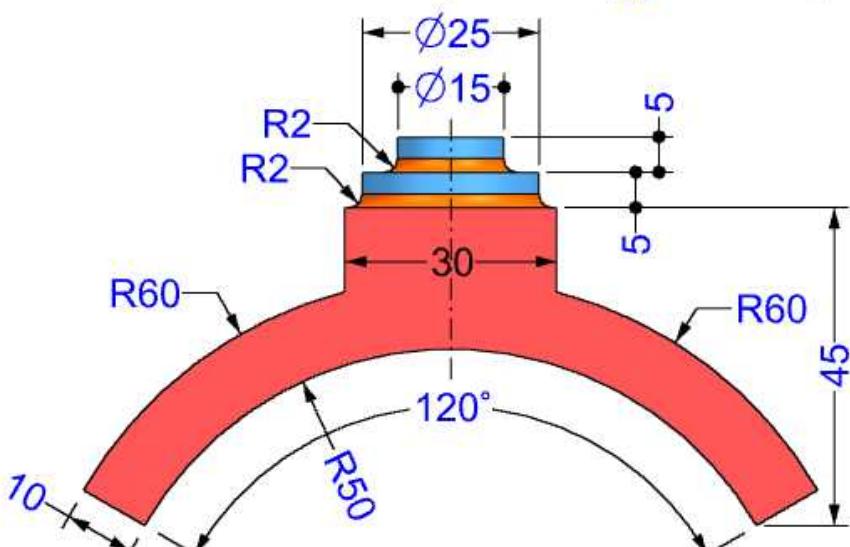
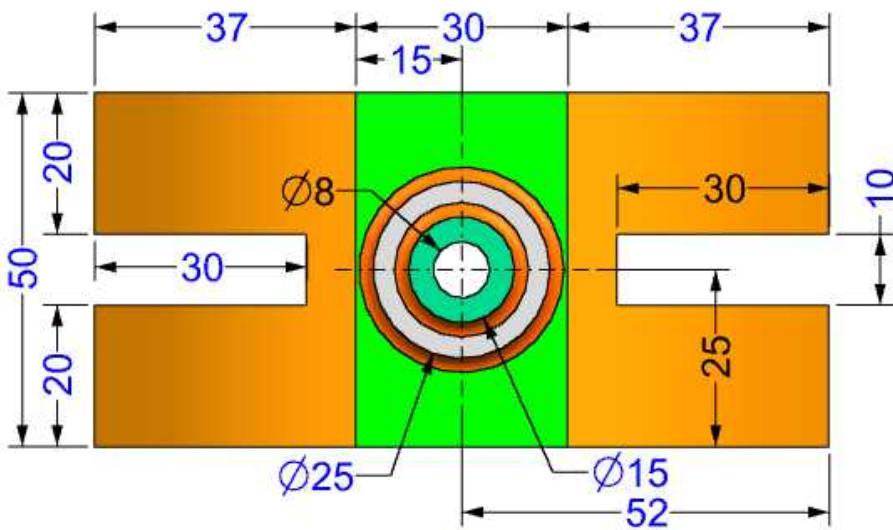
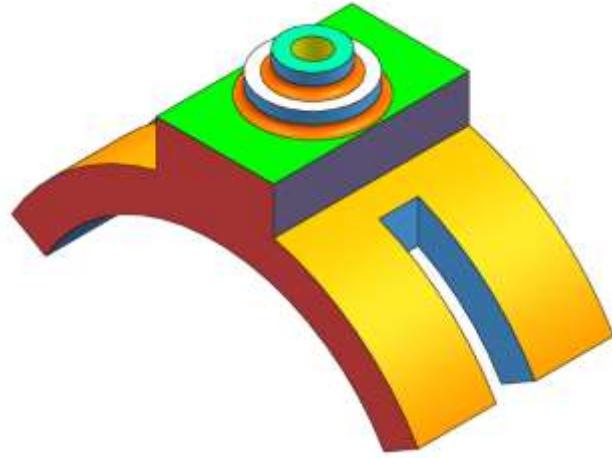
# **EXERCISE-190**



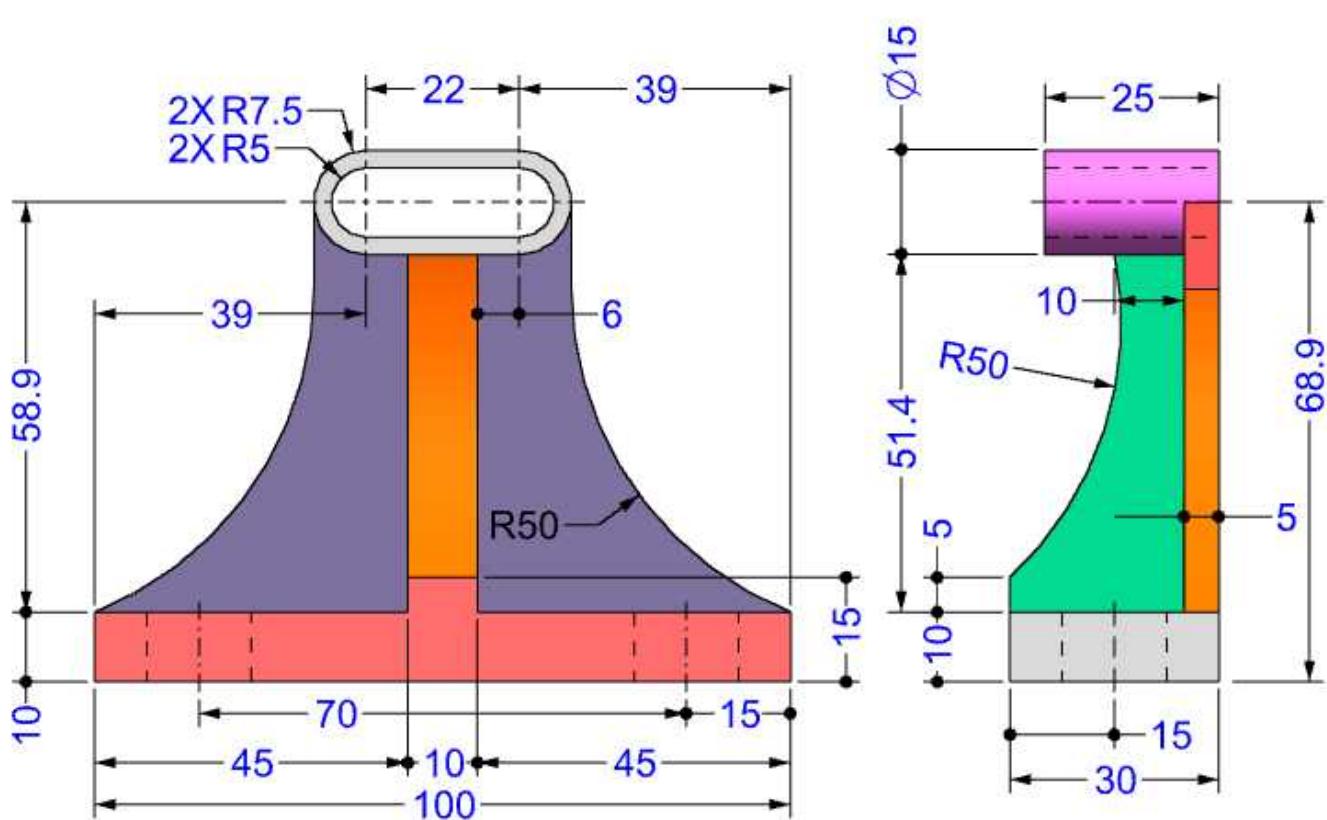
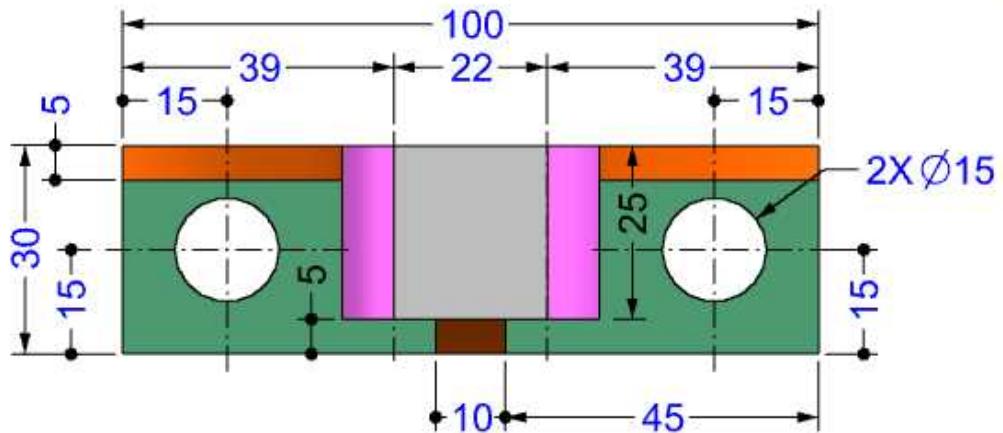
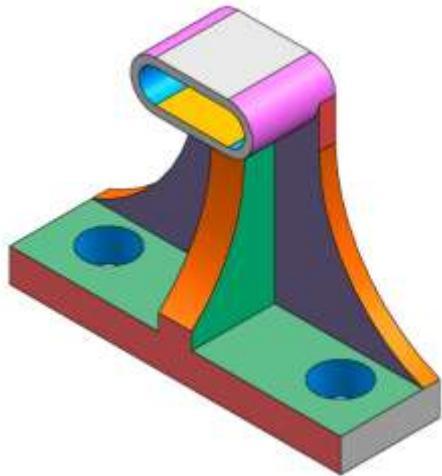
# EXERCISE-191



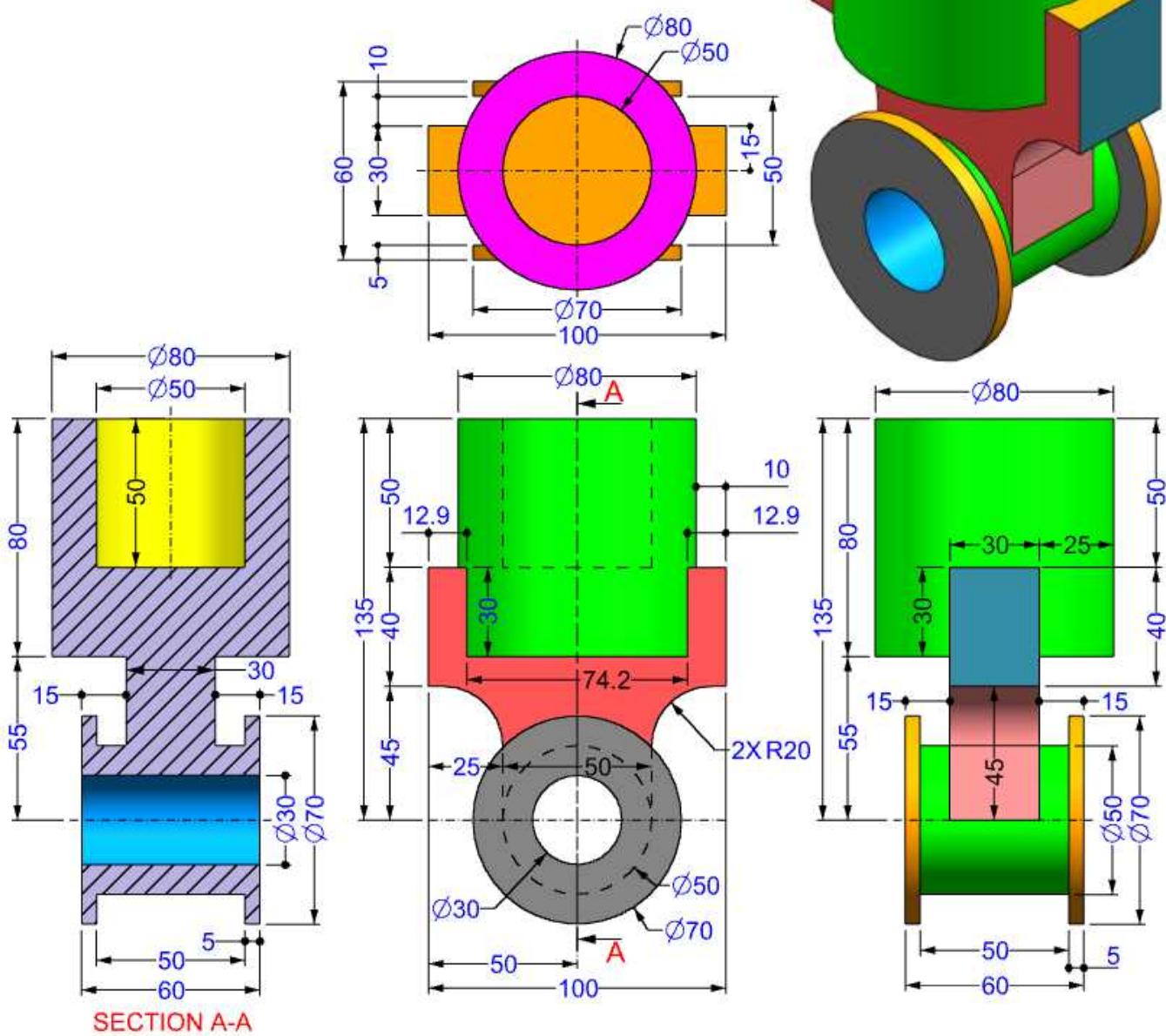
## EXERCISE-192



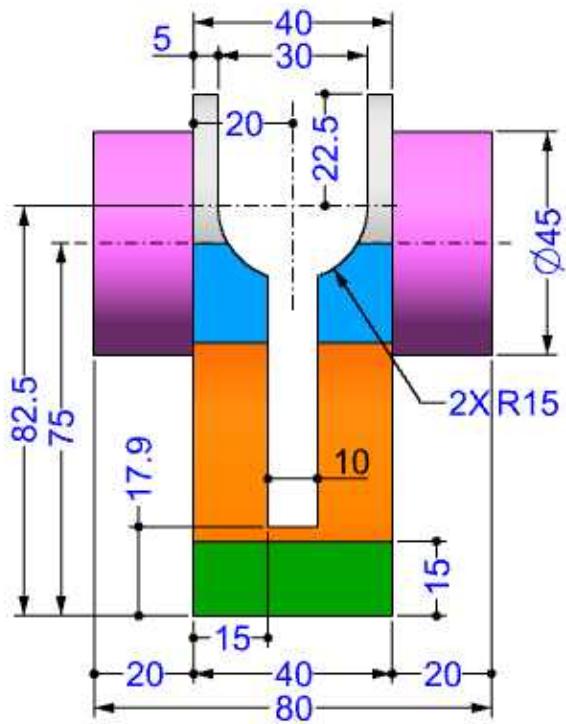
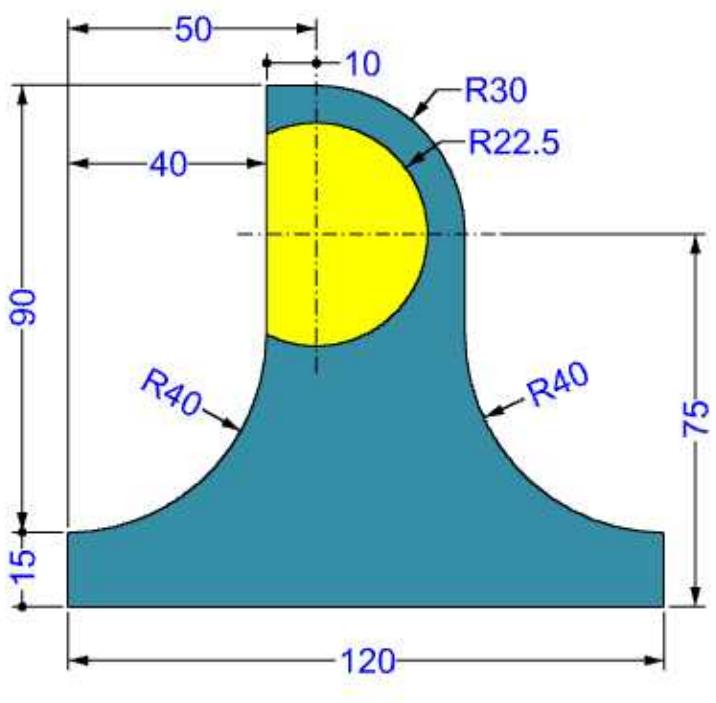
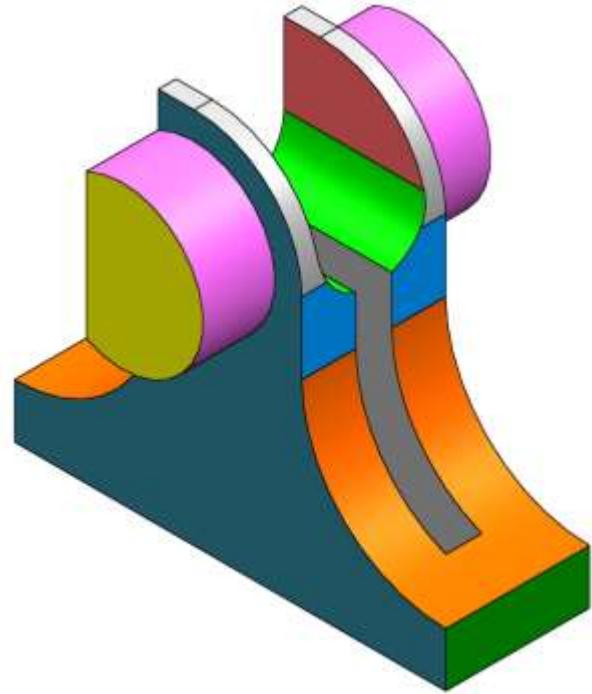
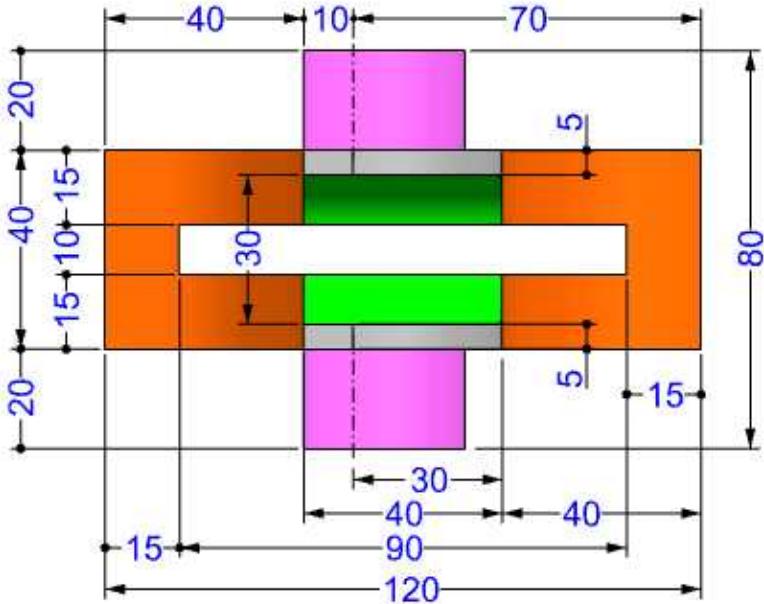
# EXERCISE-193



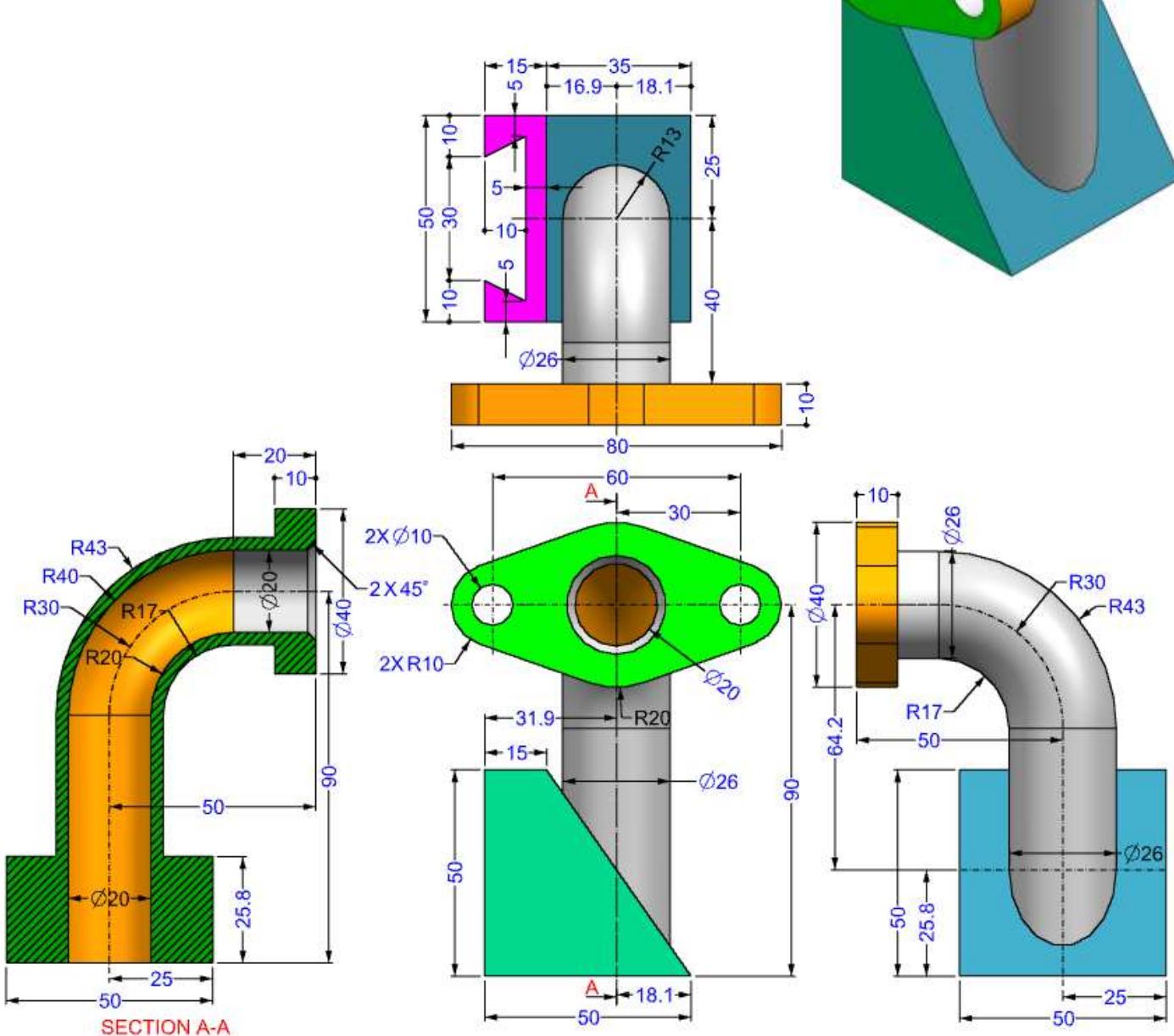
# **EXERCISE-194**



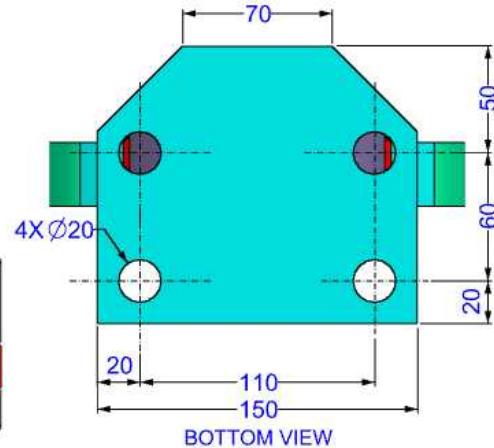
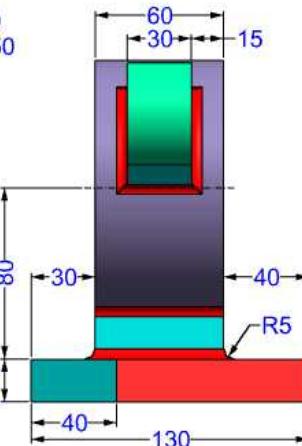
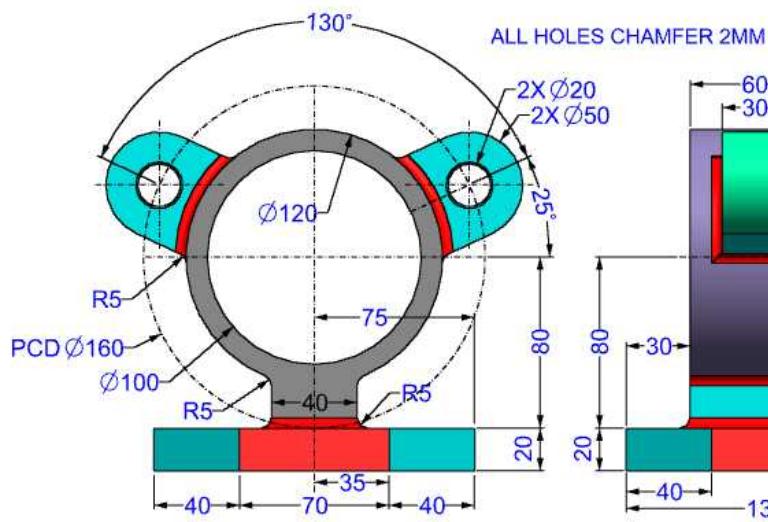
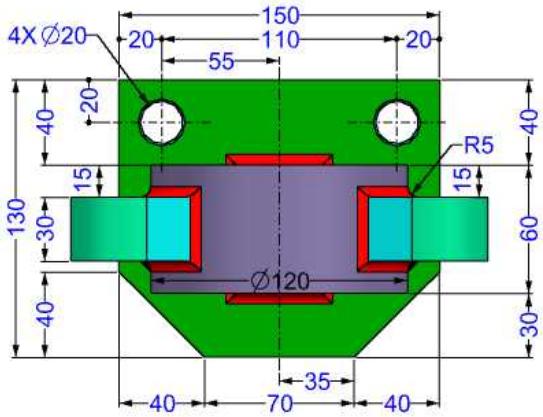
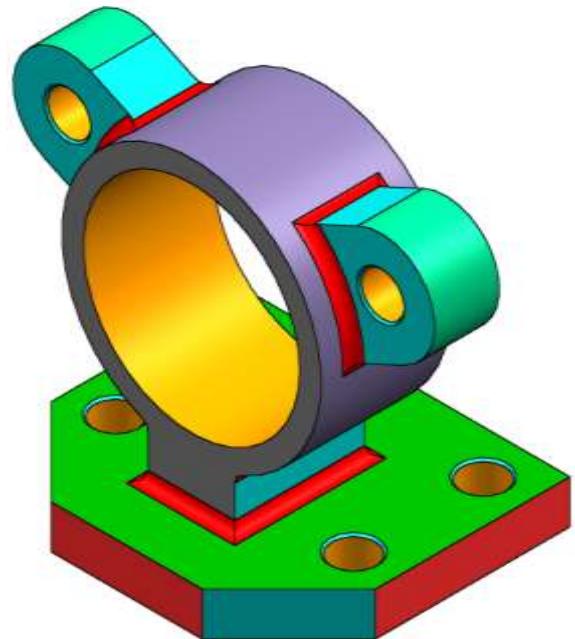
# EXERCISE-195



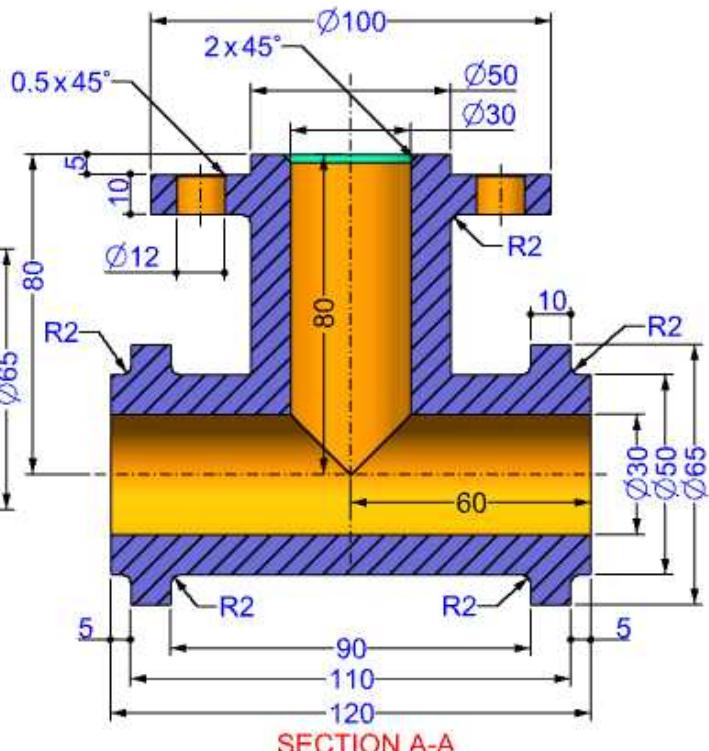
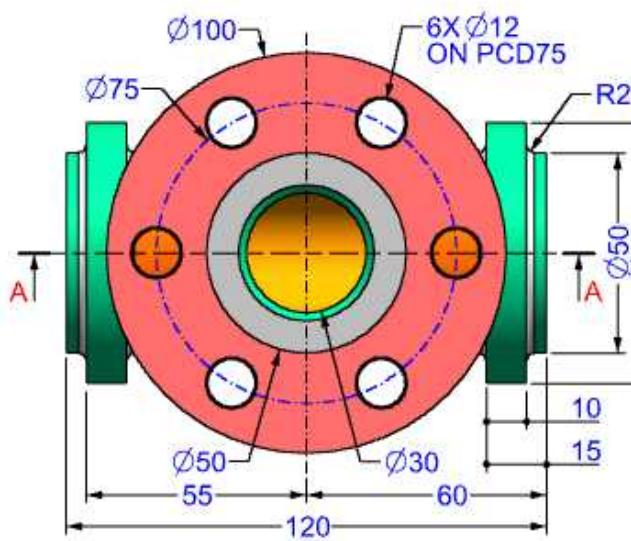
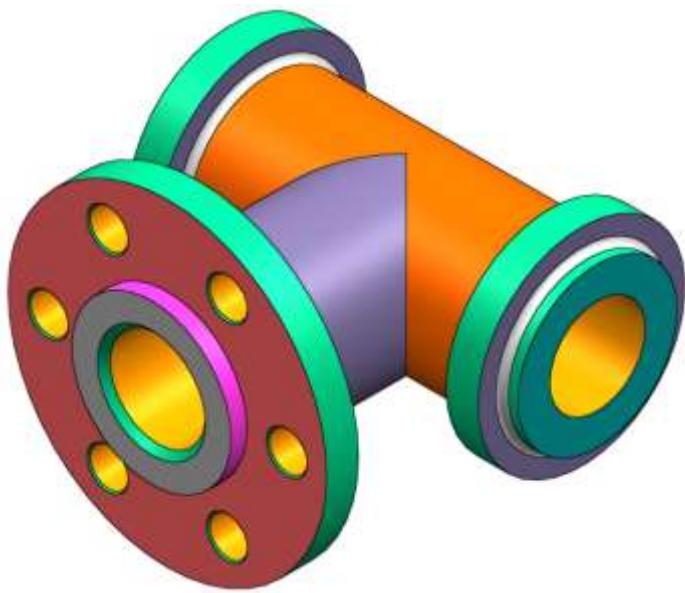
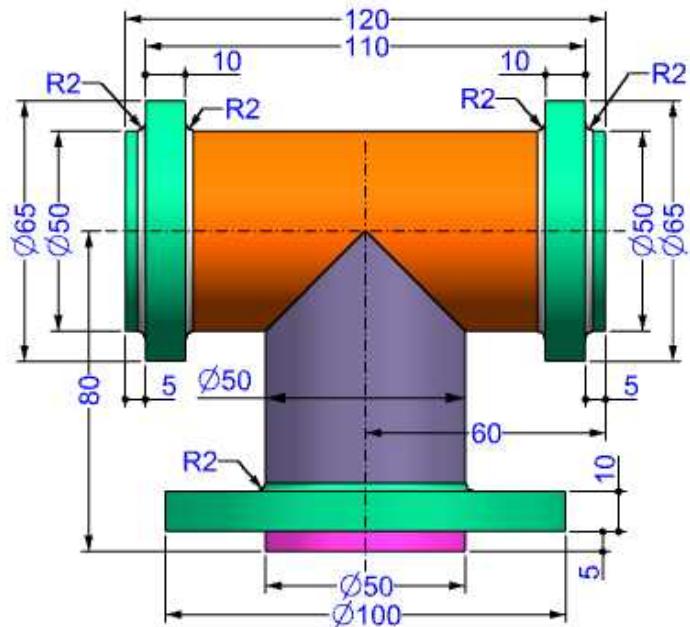
# EXERCISE-196



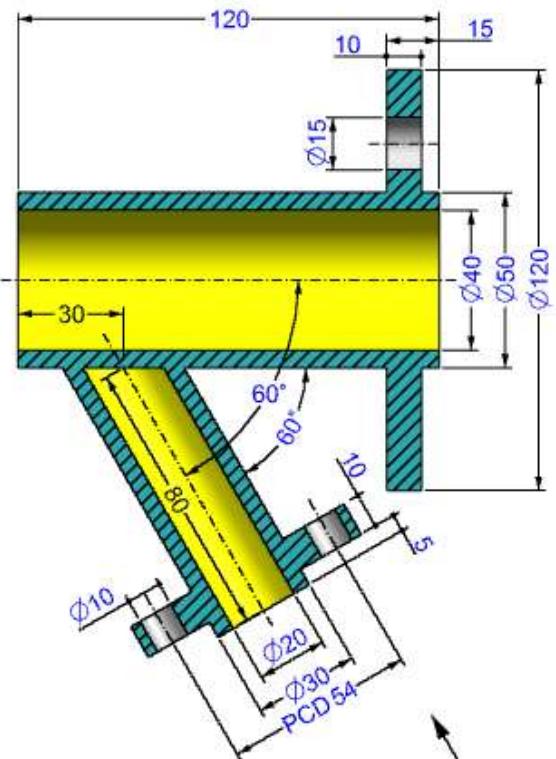
# EXERCISE-197



# **EXERCISE-198**

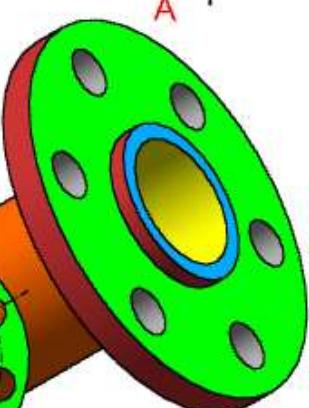
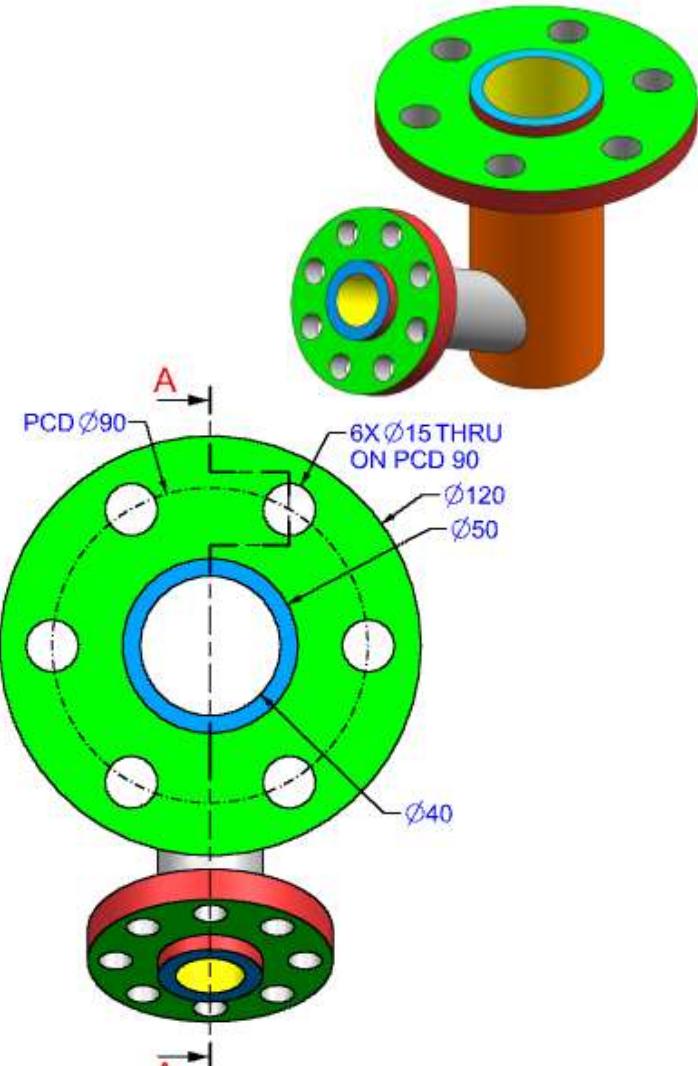


# EXERCISE-199



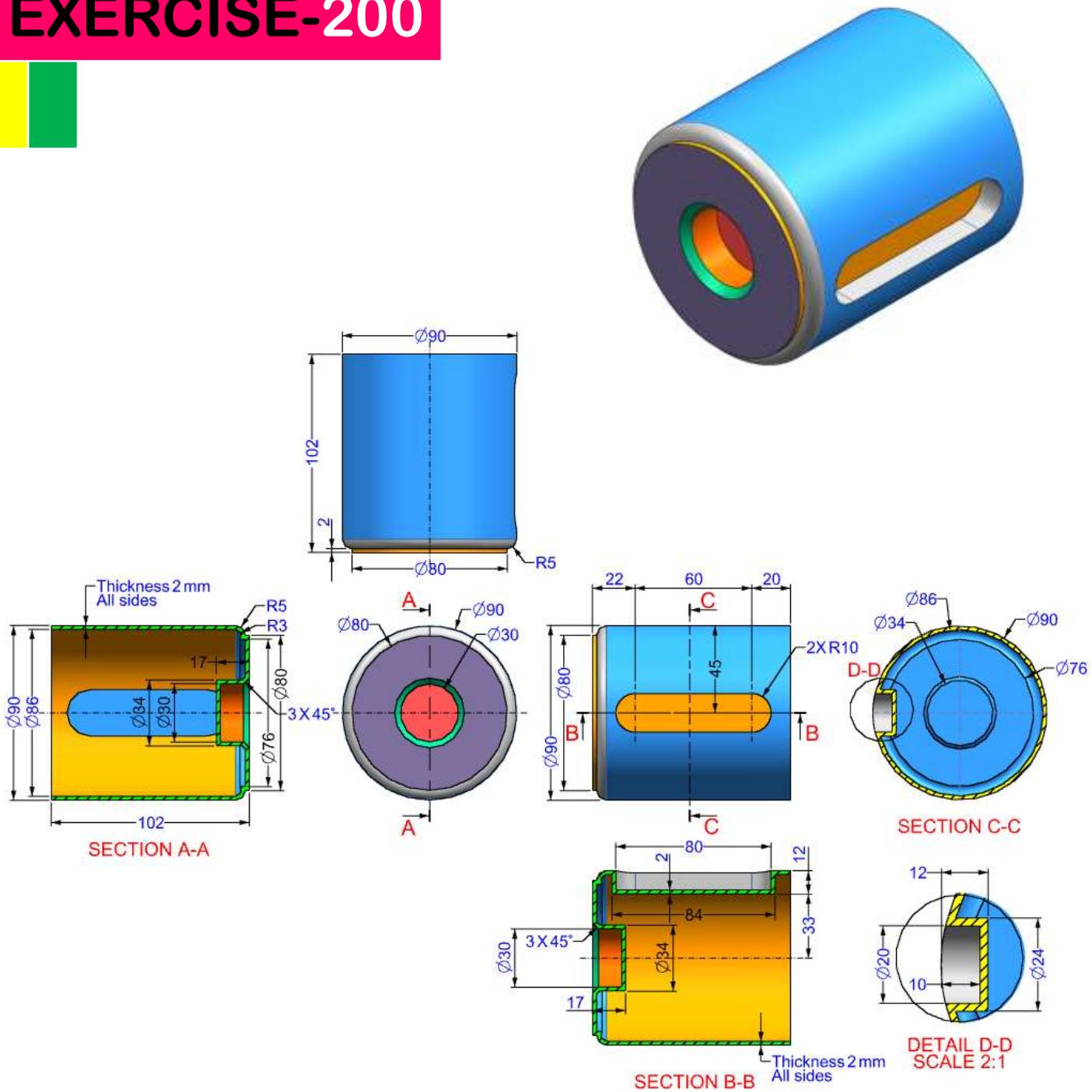
SECTION A-A

B-B



VIEW B-B

# EXERCISE-200



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3. [CAD Exercises](#)
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# **FREECAD EXERCISES**

## **200 PRACTICE EXERCISES**

### **ABOUT THE BOOK**

- ❖ S.I Units
- ❖ Predominantly used Third Angle Projection.
- ❖ This book provides 200 3D exercises and practice drawings.
- ❖ This book is for **FreeCAD** and Other Feature-Based 3D Modeling Software such as Autodesk Inventor, Catia, SolidWorks, NX, Solid Edge, AutoCAD etc.
- ❖ It is intended to provide Drafters, Designers and Engineers with enough CAD exercises for practice on **FreeCAD**.
- ❖ It includes almost all types of exercises that are necessary to provide, clear, concise and systematic information required on industrial machine part drawings.
- ❖ Third Angle Projection is intentionally used to familiarize Drafters, Designers and Engineers in Third Angle Projection to meet the expectation of world wide Engineering drawing print.
- ❖ Clear and well drafted drawing help easy understanding of the design.