

# Modelação Geométrica e Generativa

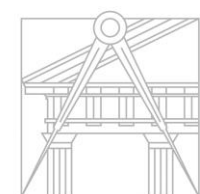
20181260

Alexandre Carvalho



**U** LISBOA

UNIVERSIDADE  
DE LISBOA



FACULDADE DE ARQUITETURA  
UNIVERSIDADE DE LISBOA

**MGeG**

Mestrado Integrado em Arquitectura  
Ano Lectivo 2022-2023 1º Semestre  
Docente - Nuno Alão 4º Ano

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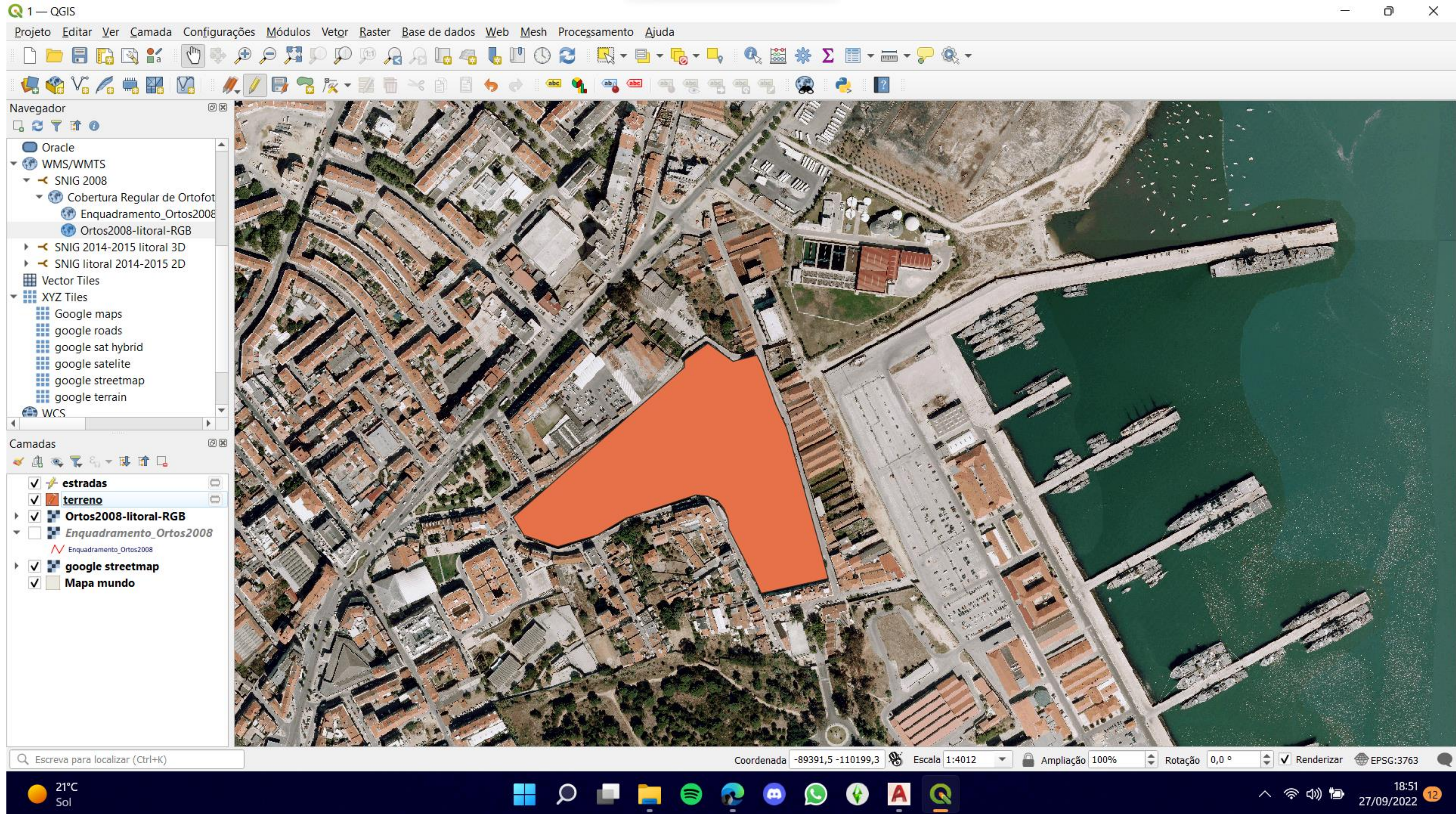
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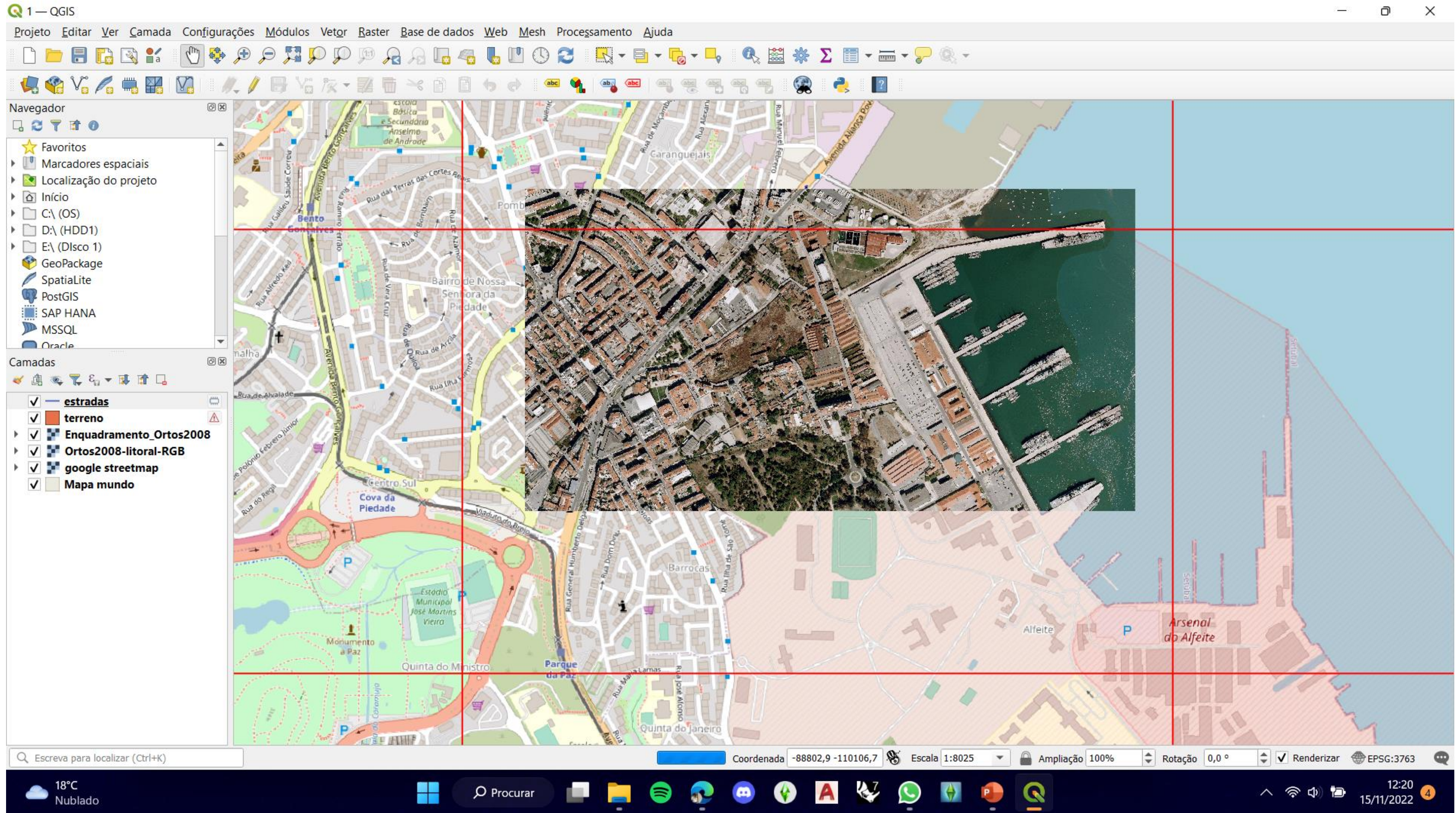
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# 1- Exercícios QGIS



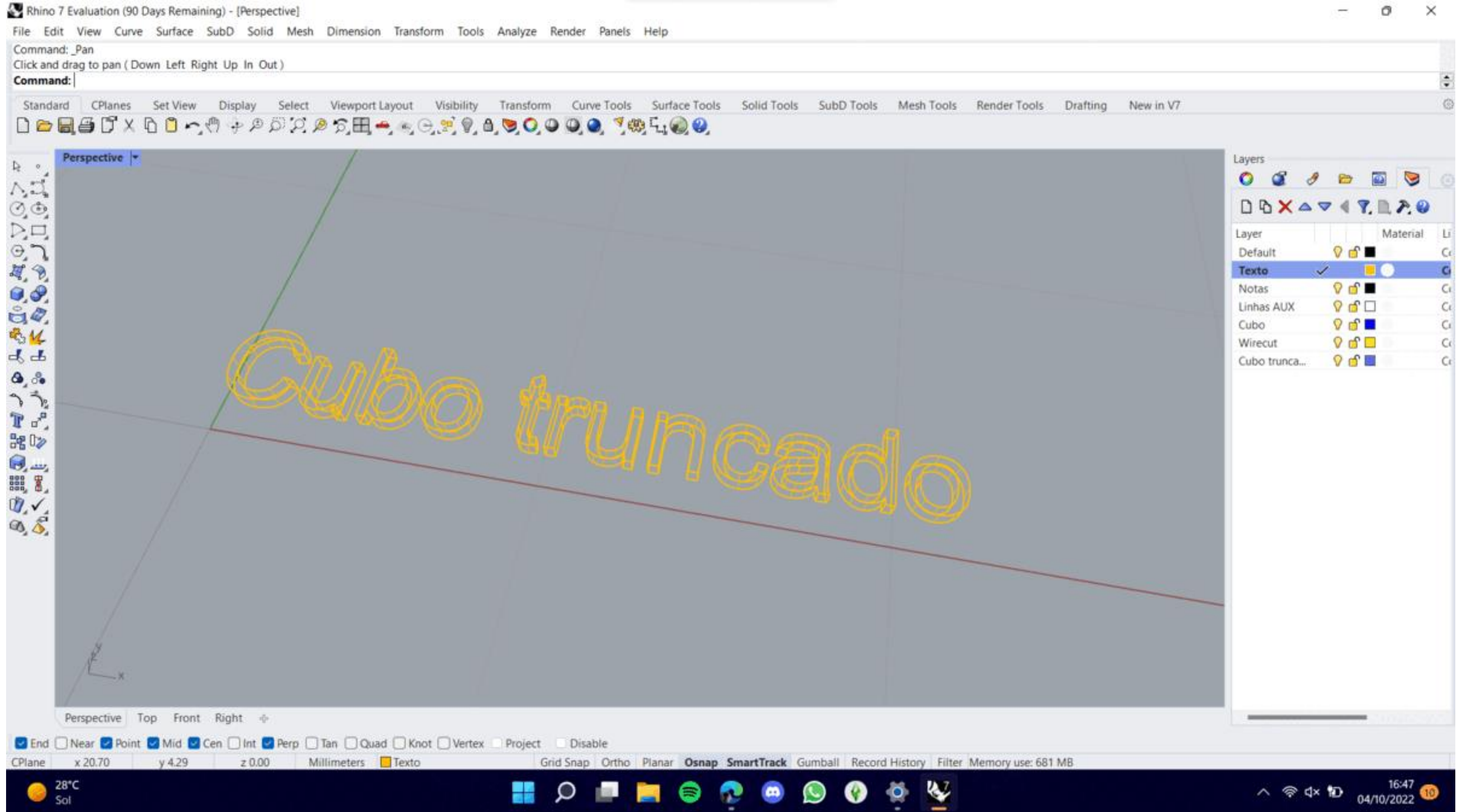
# Exerc. 1.1 – QGIS



# Exerc. 1.2 - QGIS

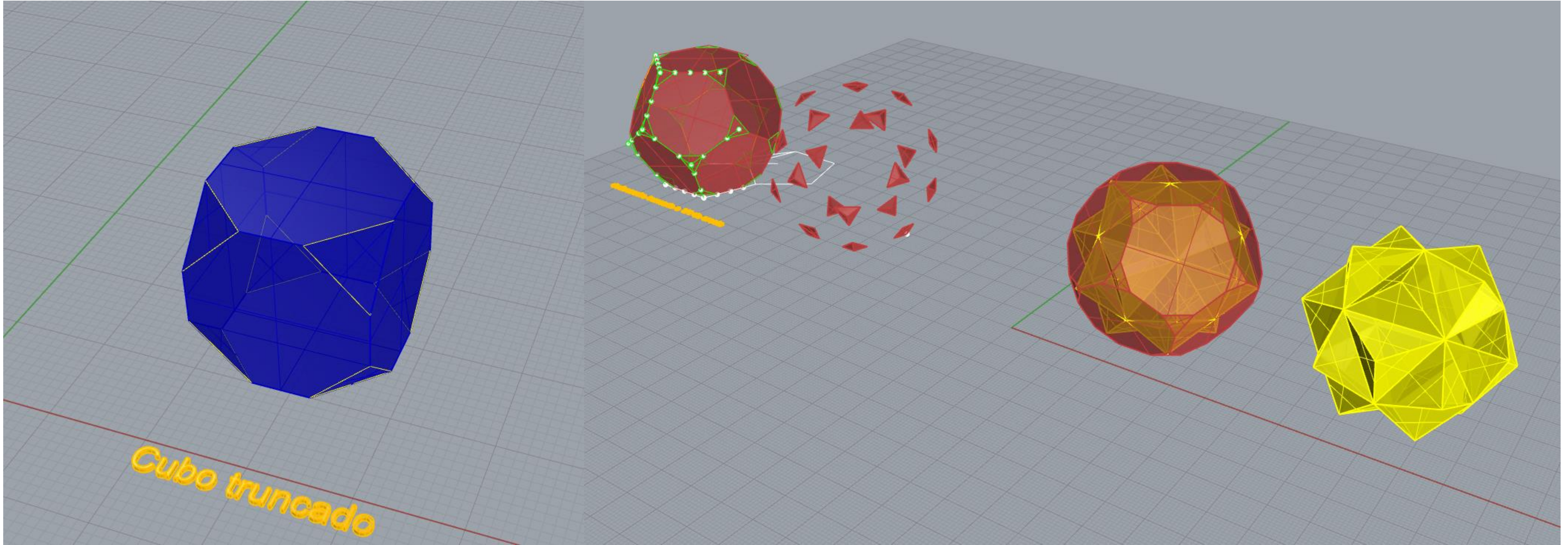


# 2- Exercícios Poliedros



# Exerc. 2.1 - Poliedros

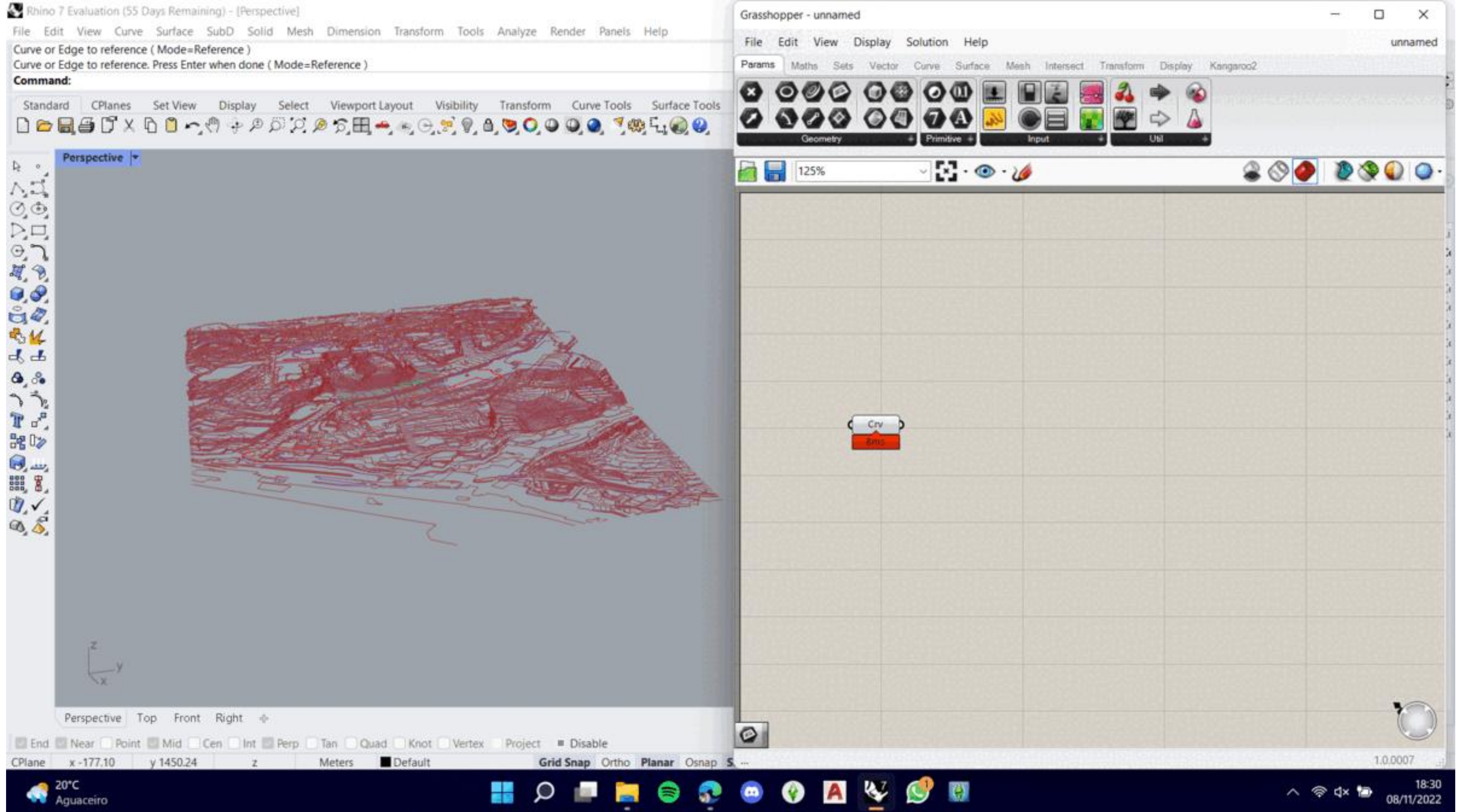




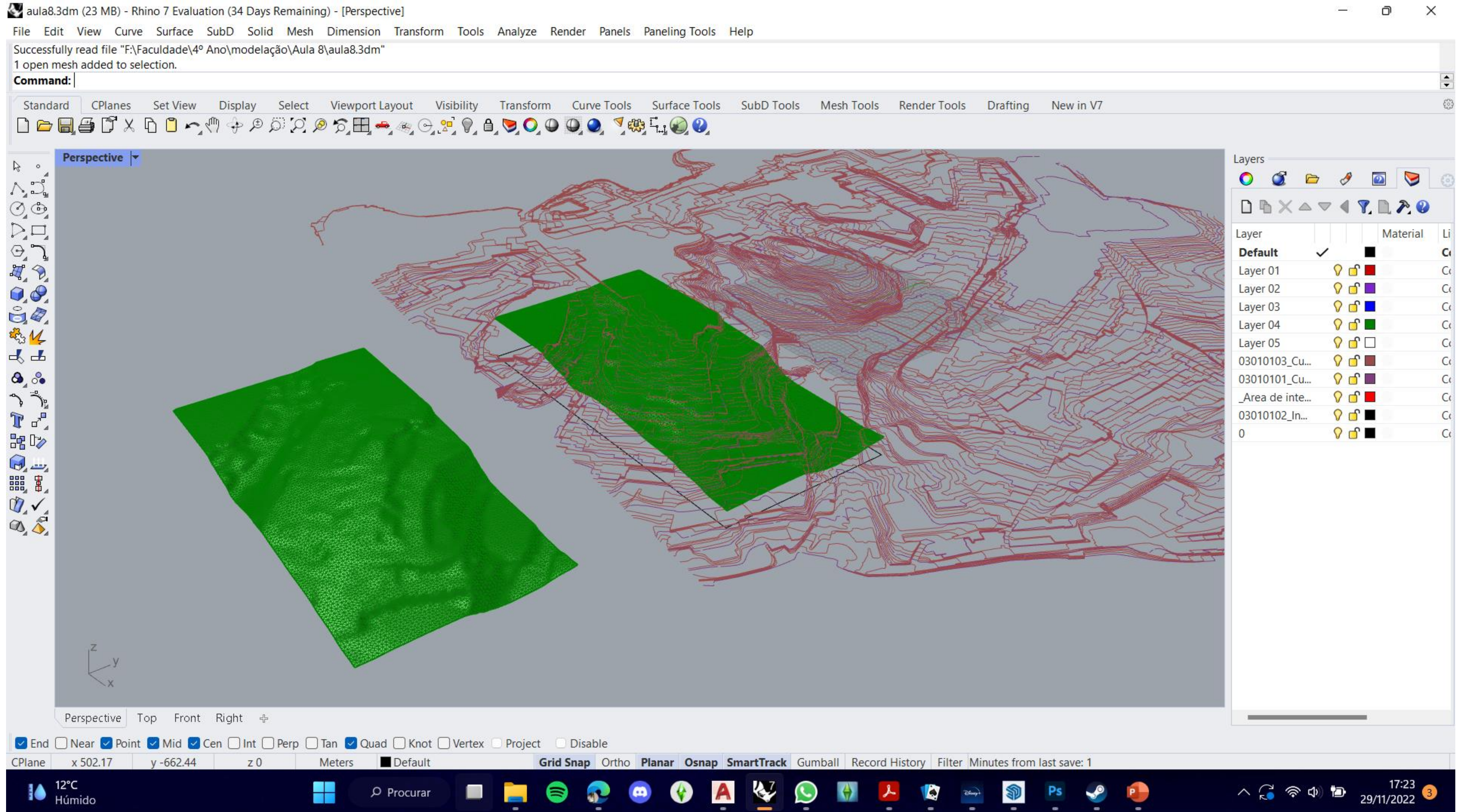
# Exerc. 2.1 - Poliedros



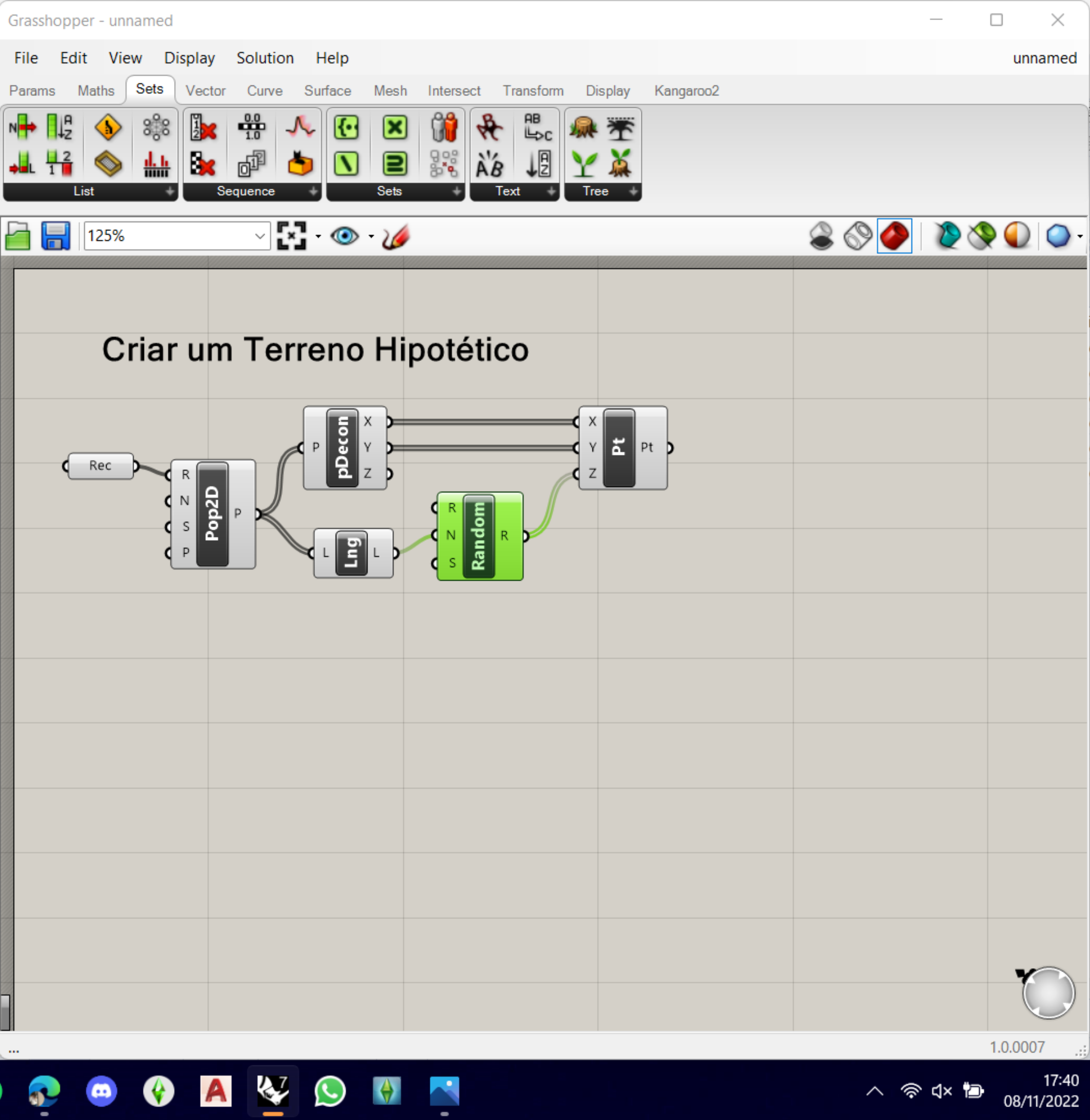
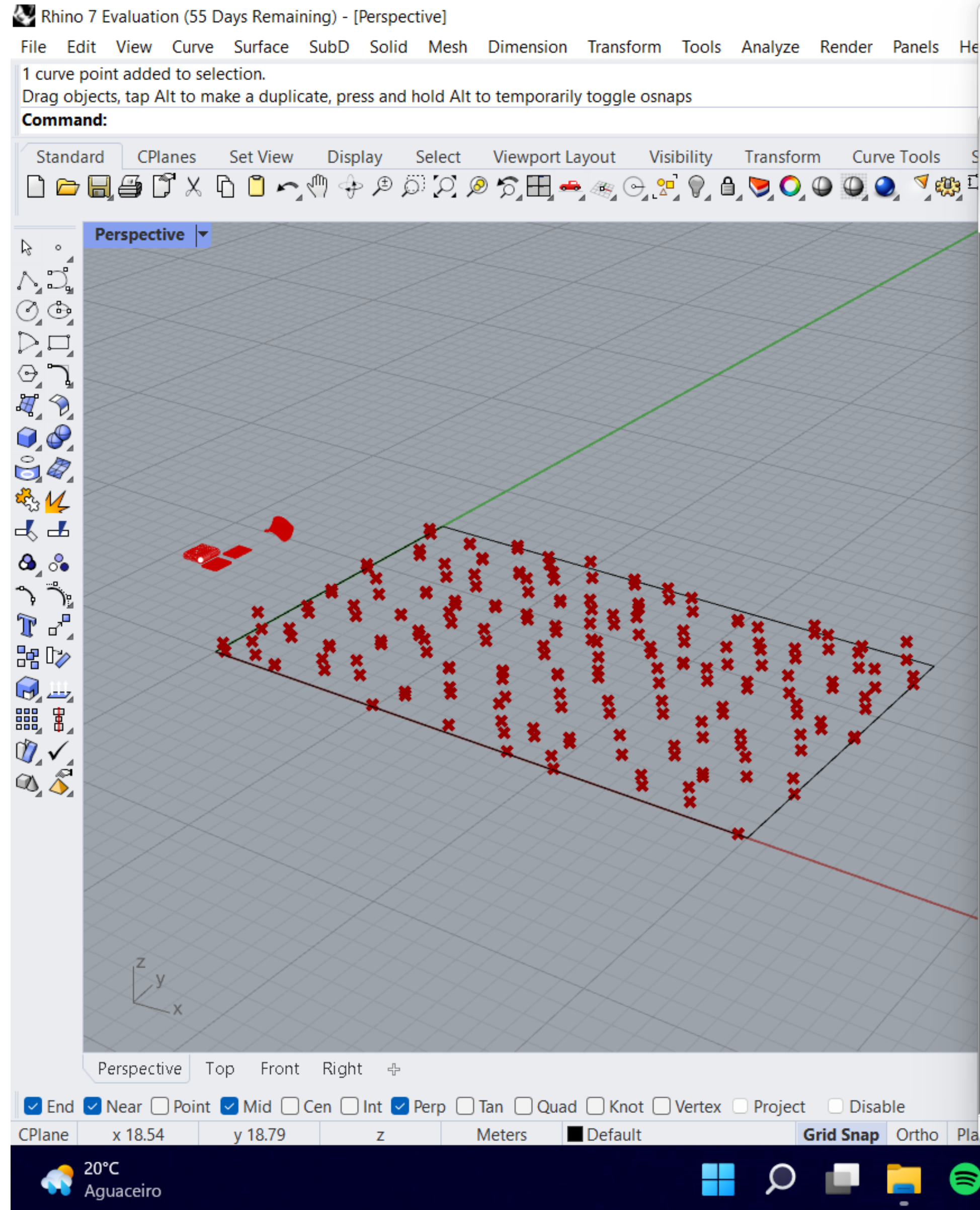
# 3- Exercícios Terreno



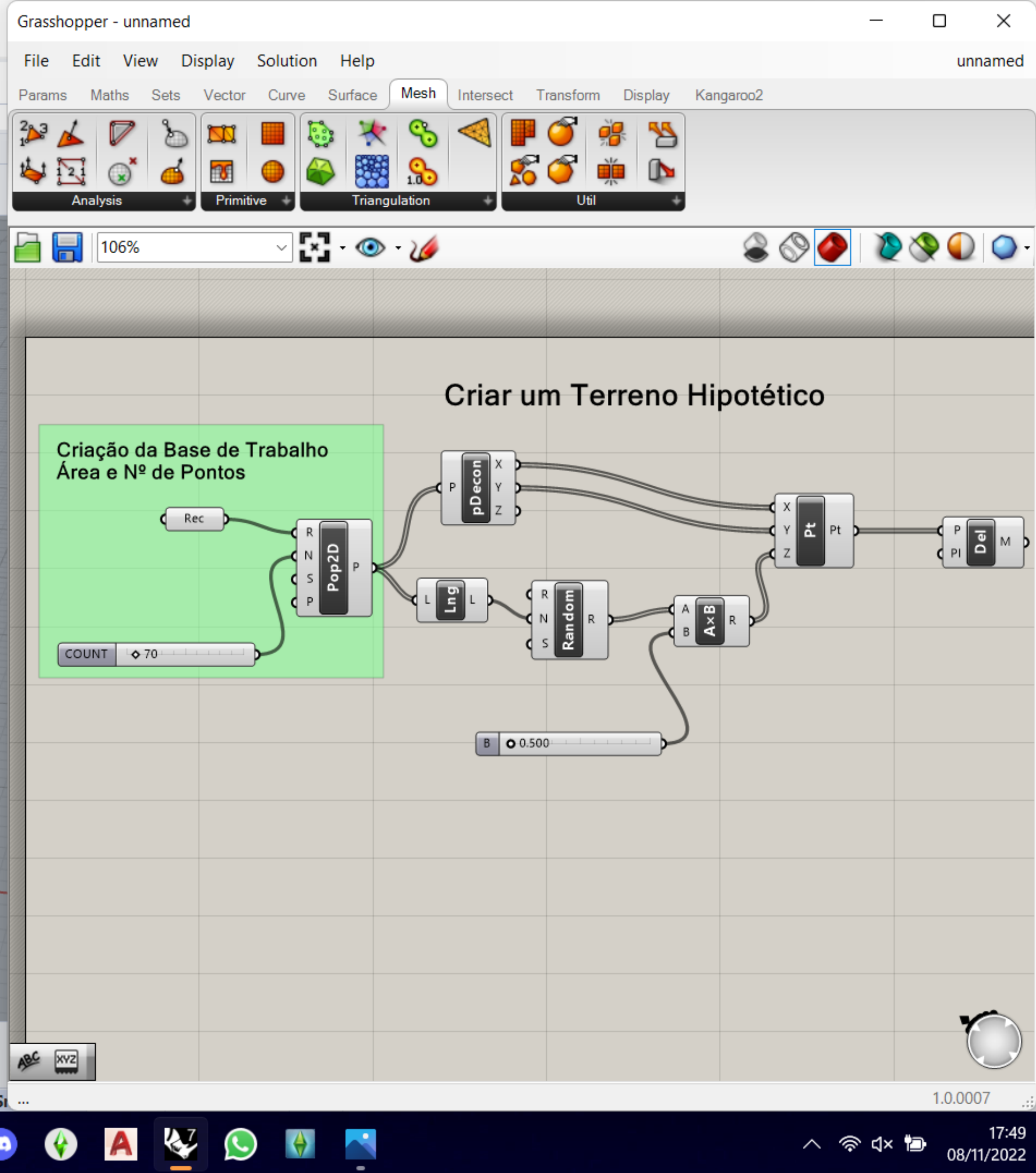
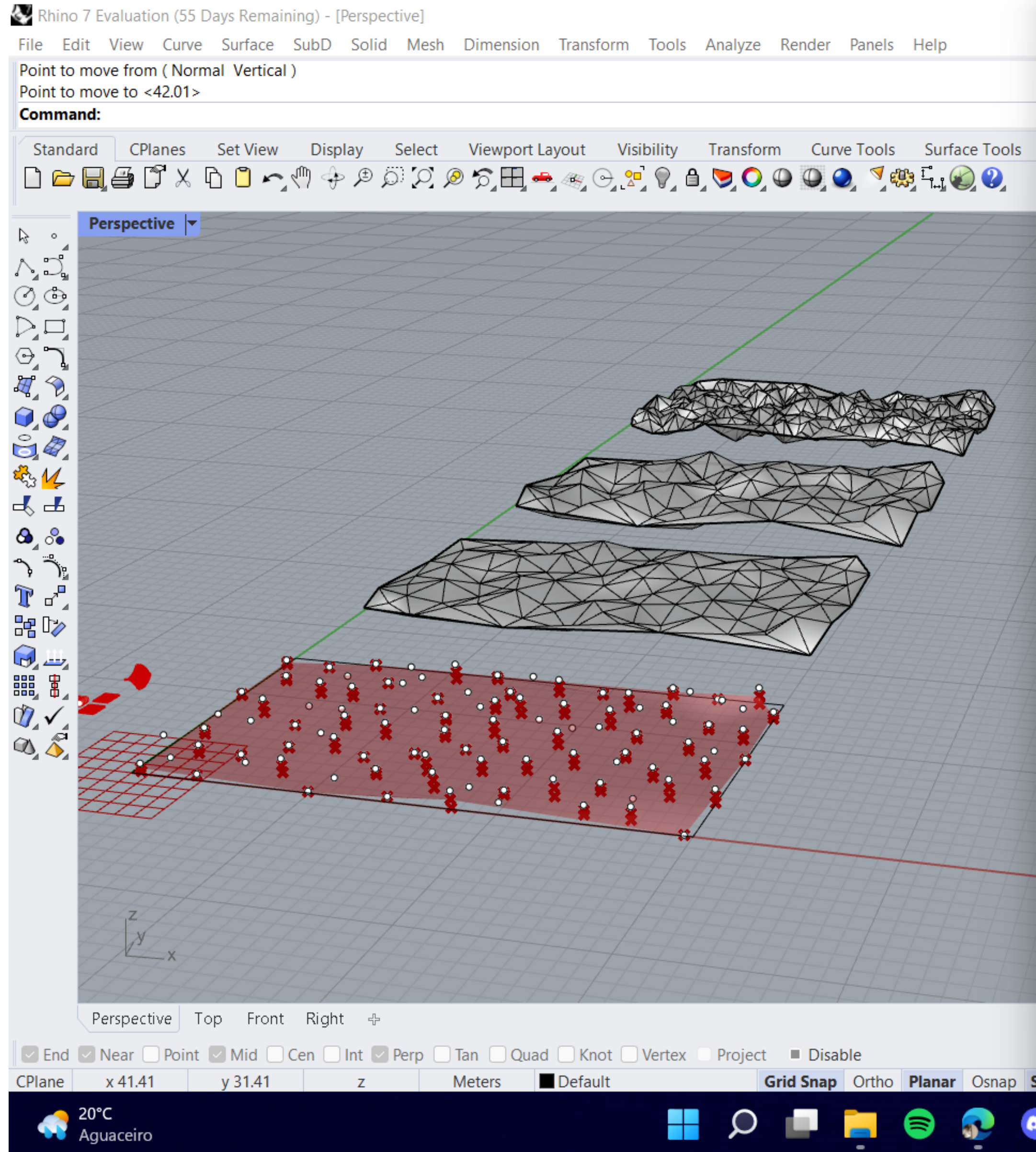
# Exerc. 3.1 - Terreno



# Exerc. 3.1 - Terreno



# Exerc. 3.2 – Terreno hipotético



# Exerc. 3.2 – Terreno hipotético

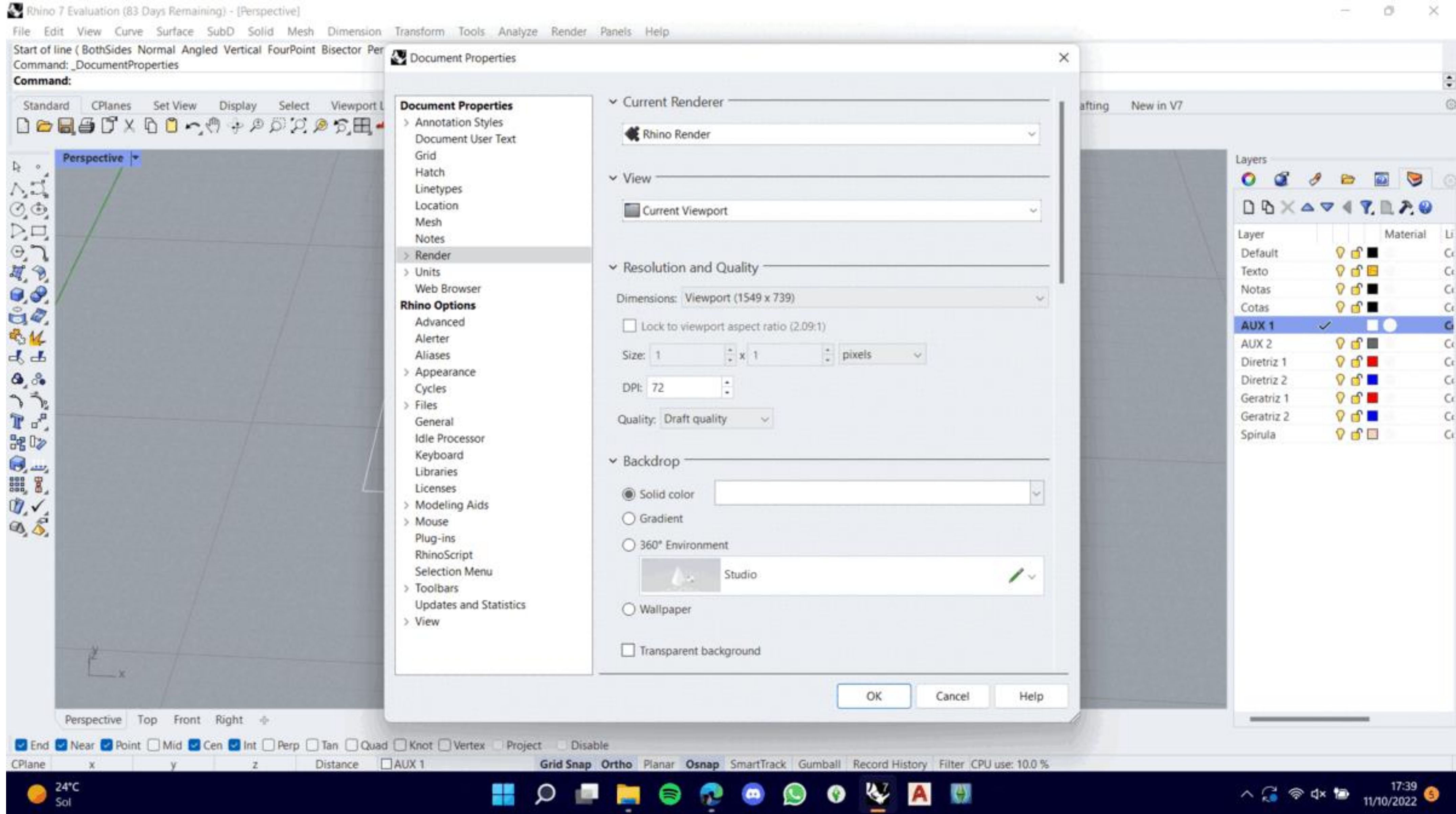


# 4- Exercícios Conchas

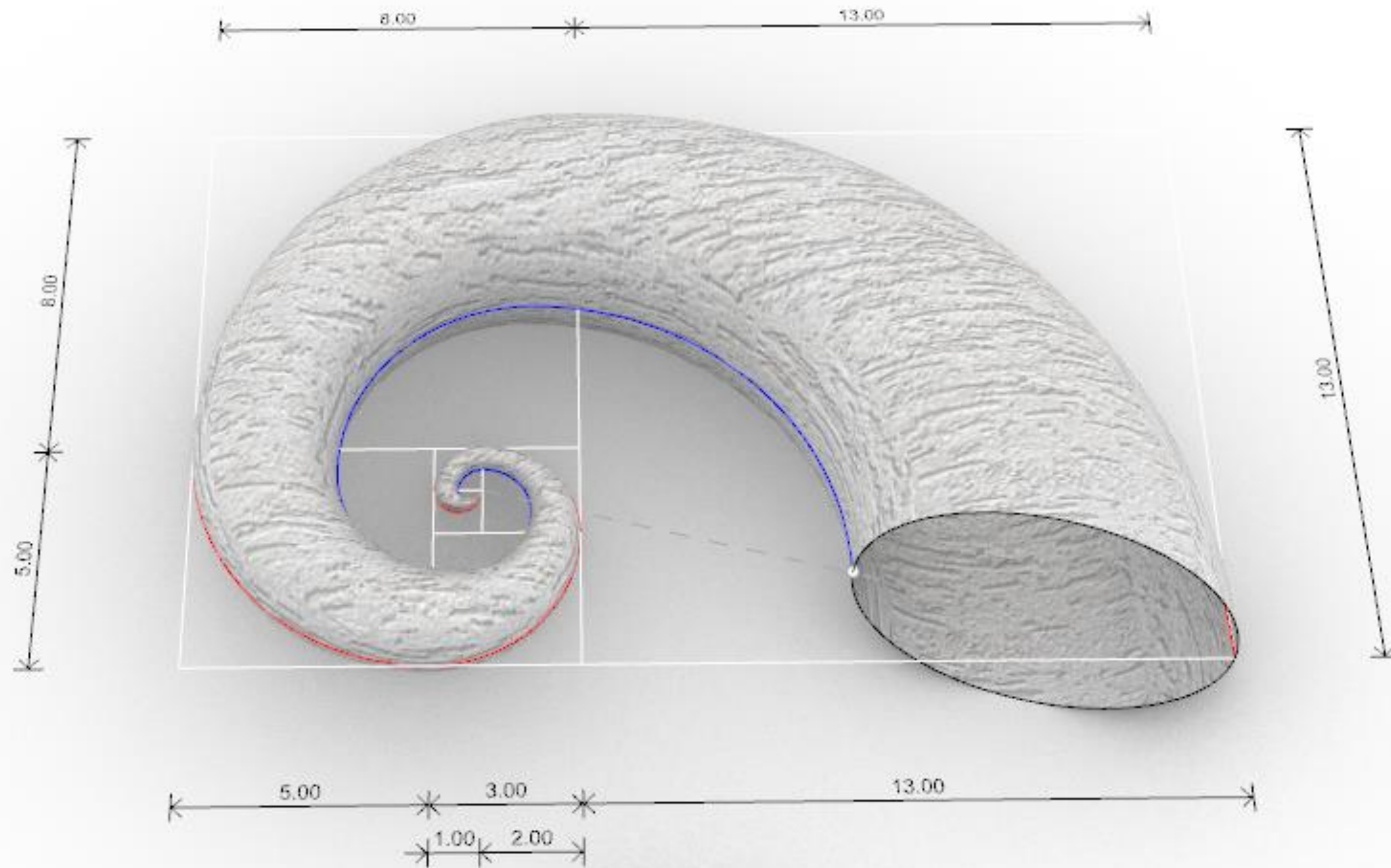


Exerc. 4.1 - Spirula





# Exerc. 4.1 - Spirula

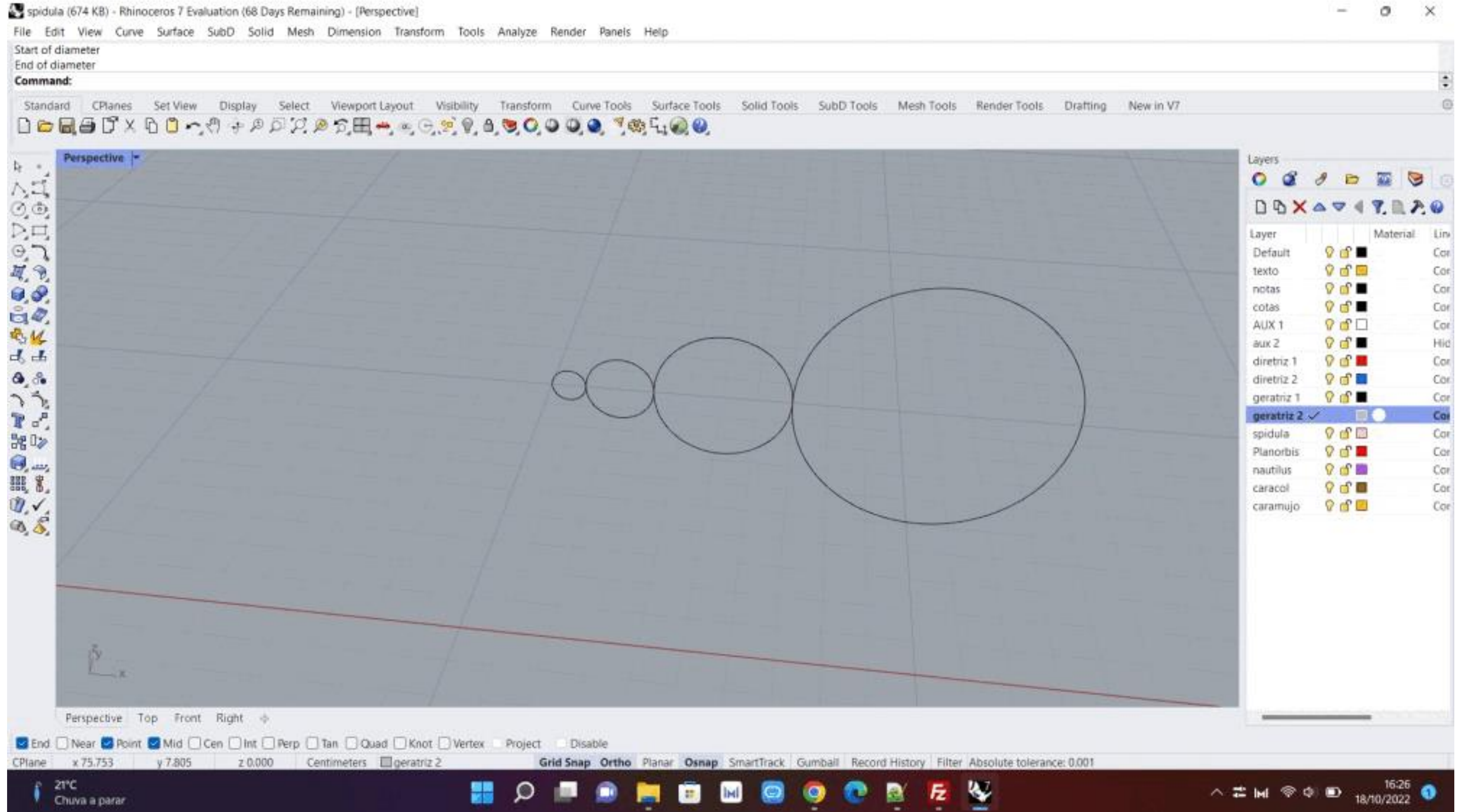


Spirula

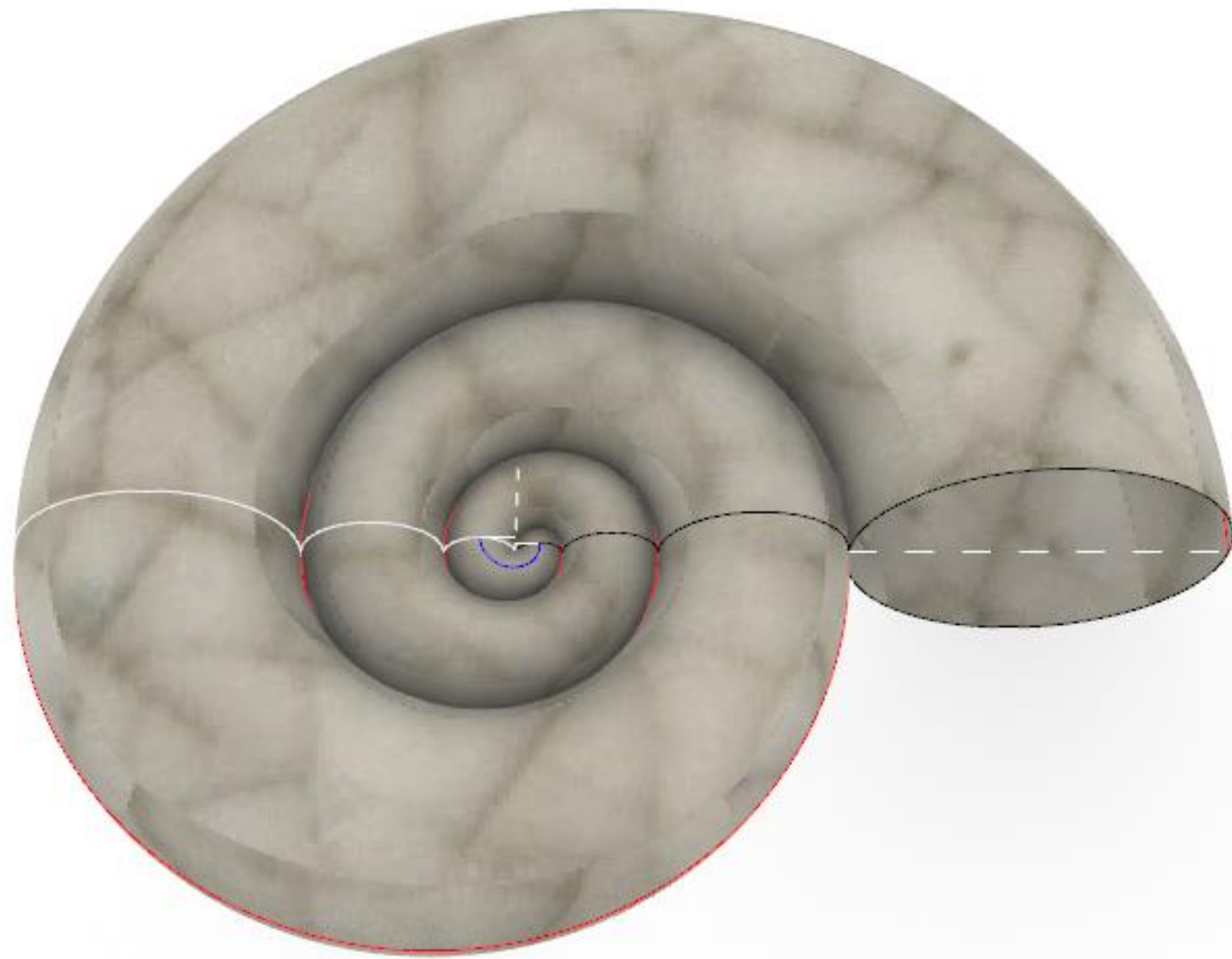
Exerc. 4.1 - Spirula



Exerc. 4.2 - Planorbis



# Exerc. 4.2 - Planorbis



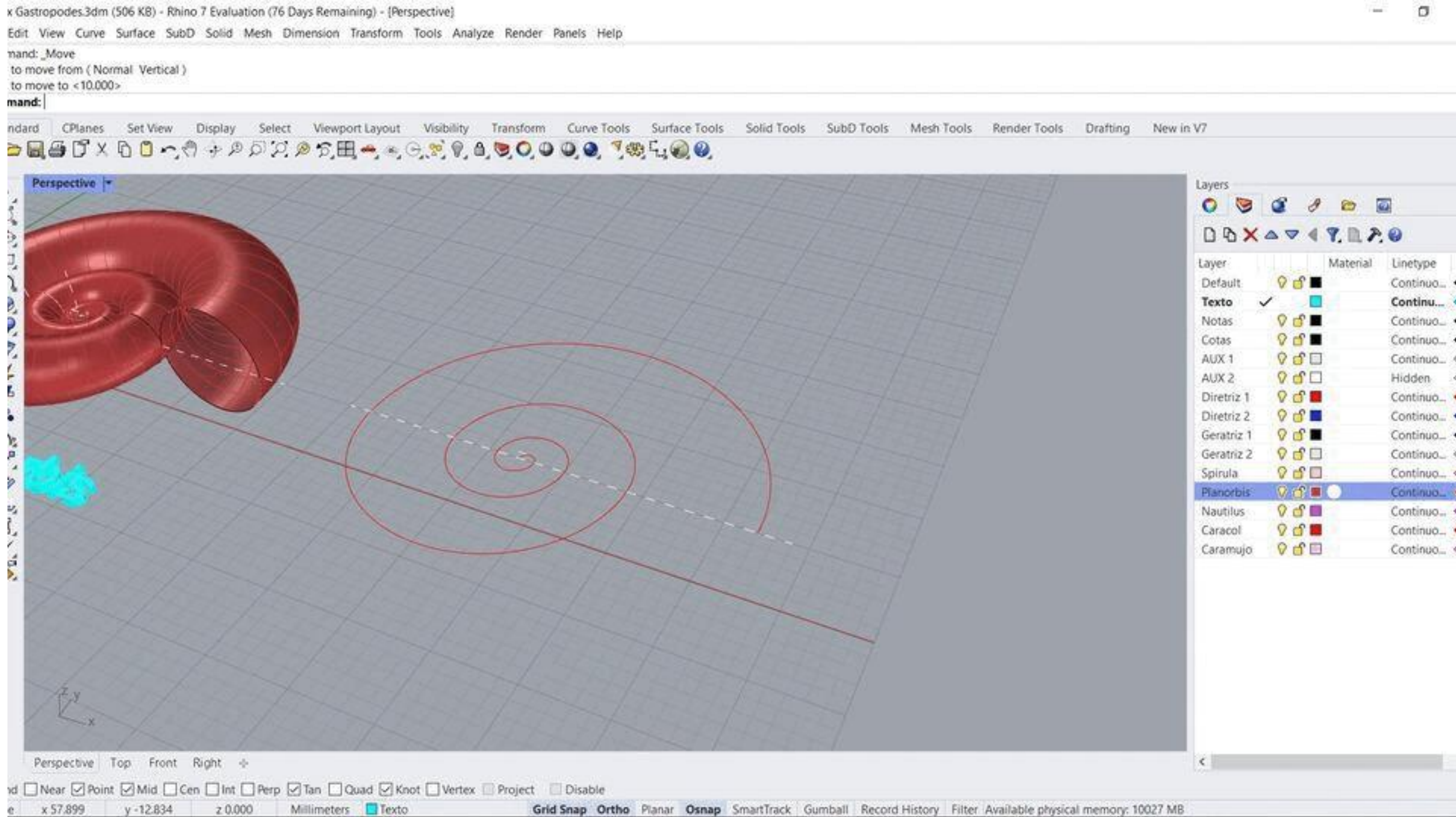
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Exerc. 4.2 - Planorbis

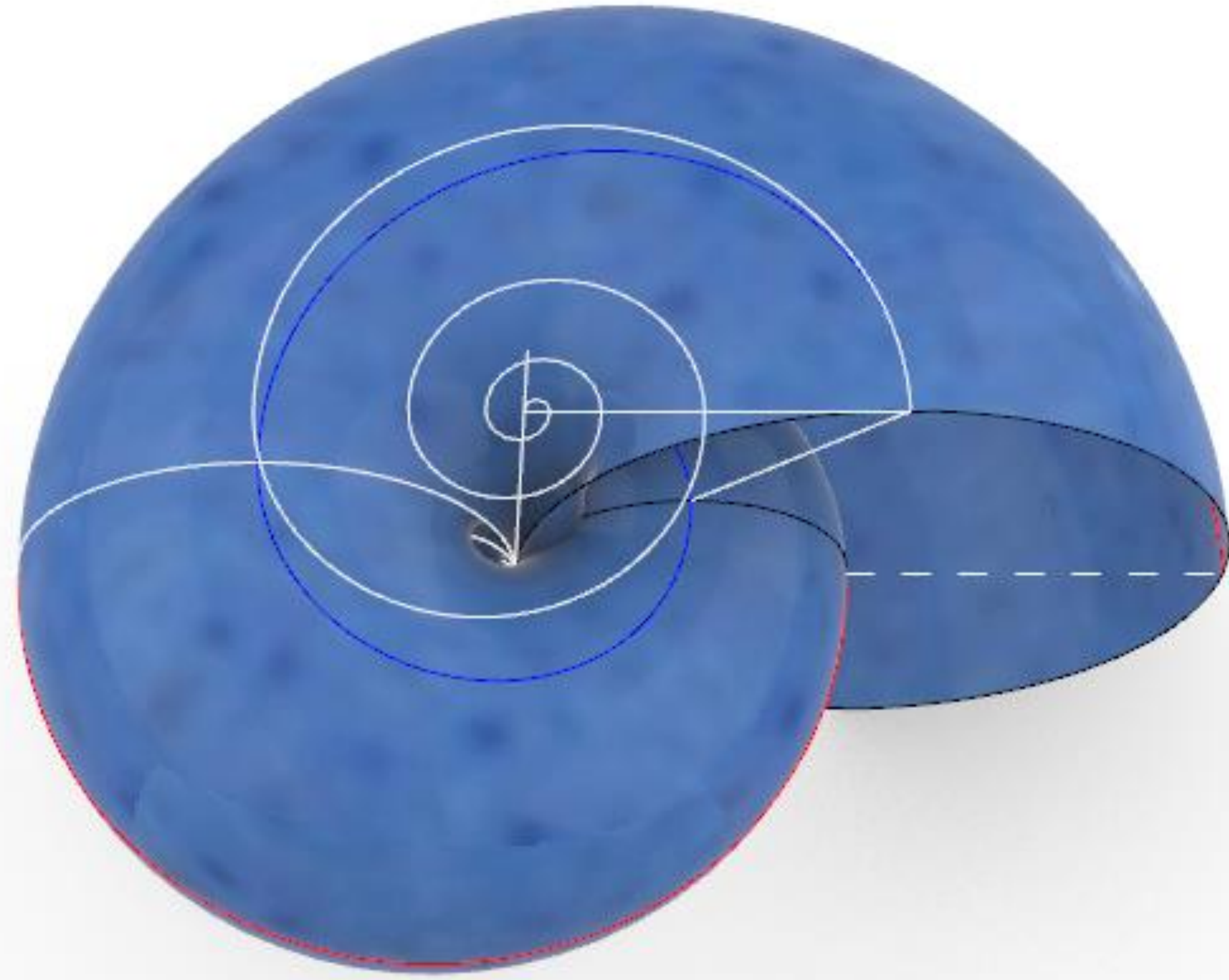


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- Steven Oscherwi

## Exerc. 4.3 – Nautilus



# Exerc. 4.3 – Nautilus



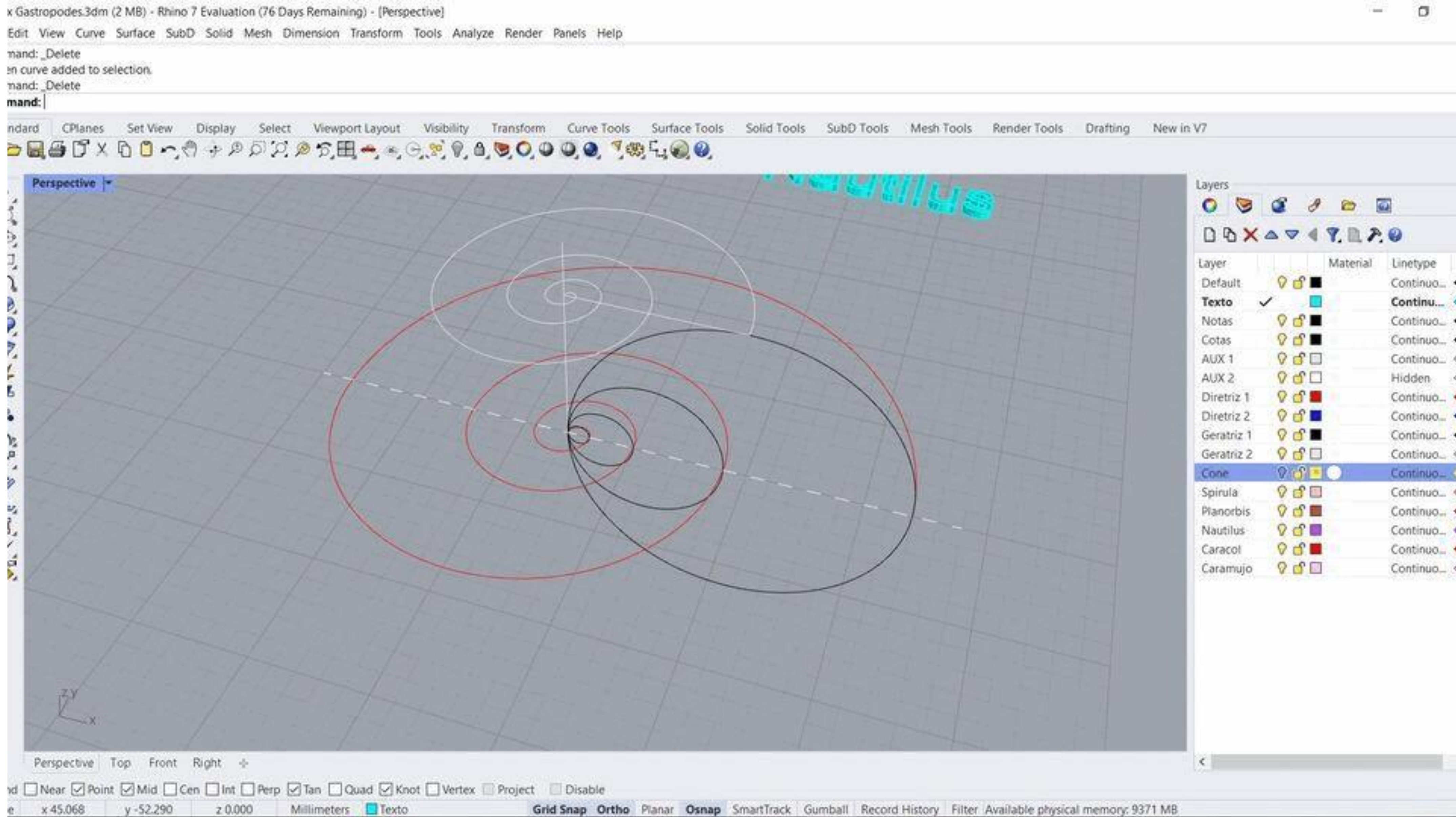
**Ex 2.3 - Nautilus**

Exerc. 4.3 – Nautilus

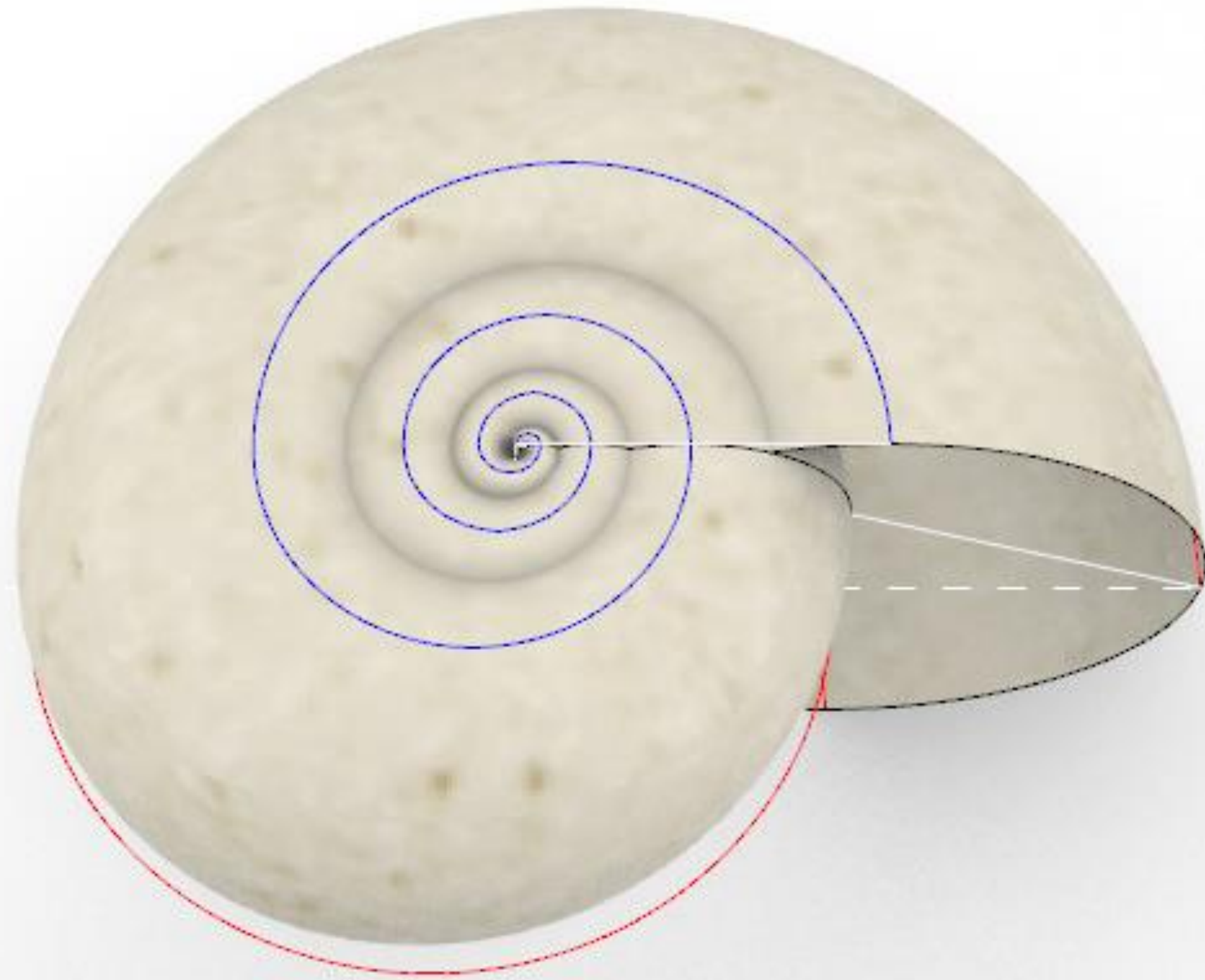




Exerc. 4.4 – Caracol



# Exerc. 4.4 – Caracol

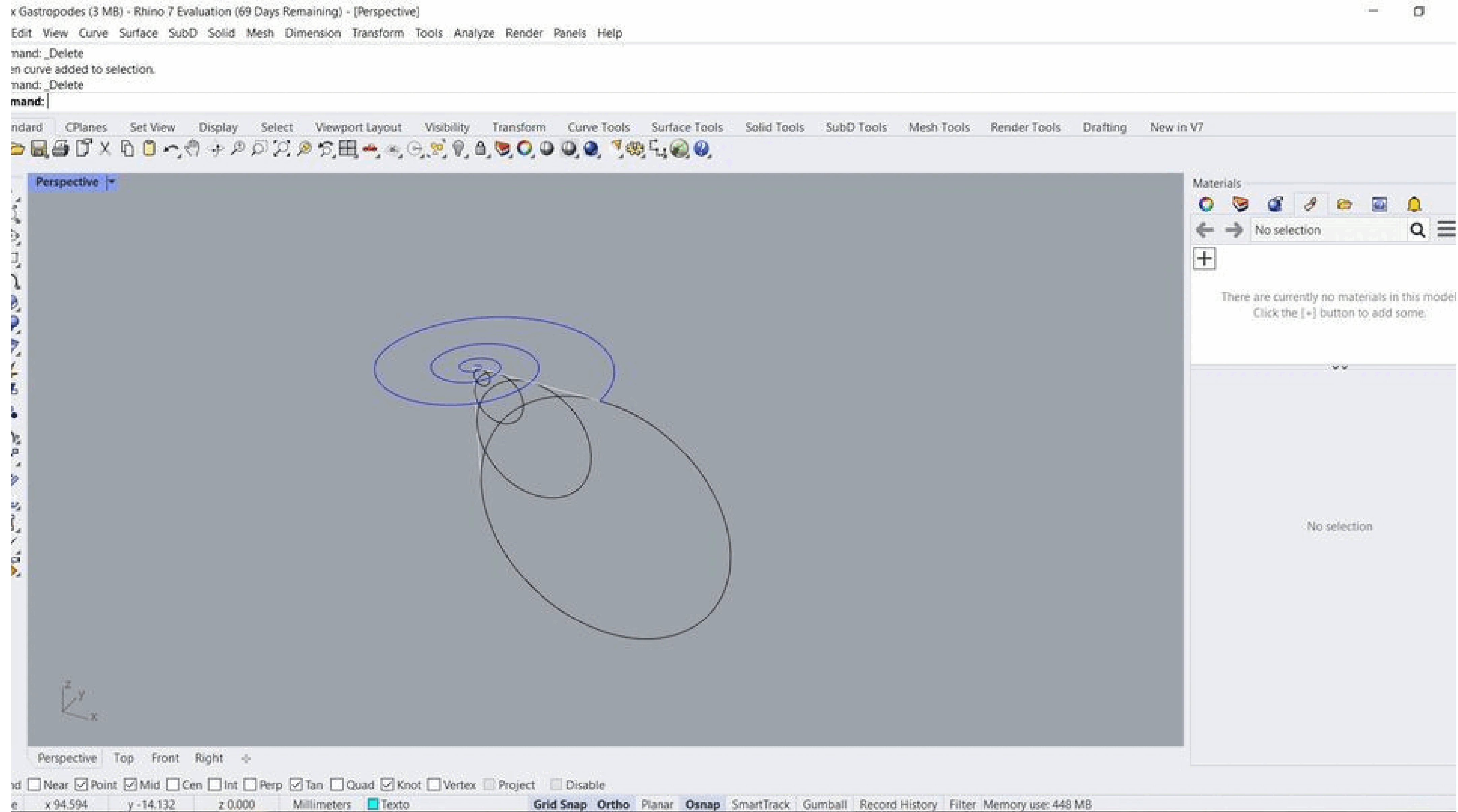


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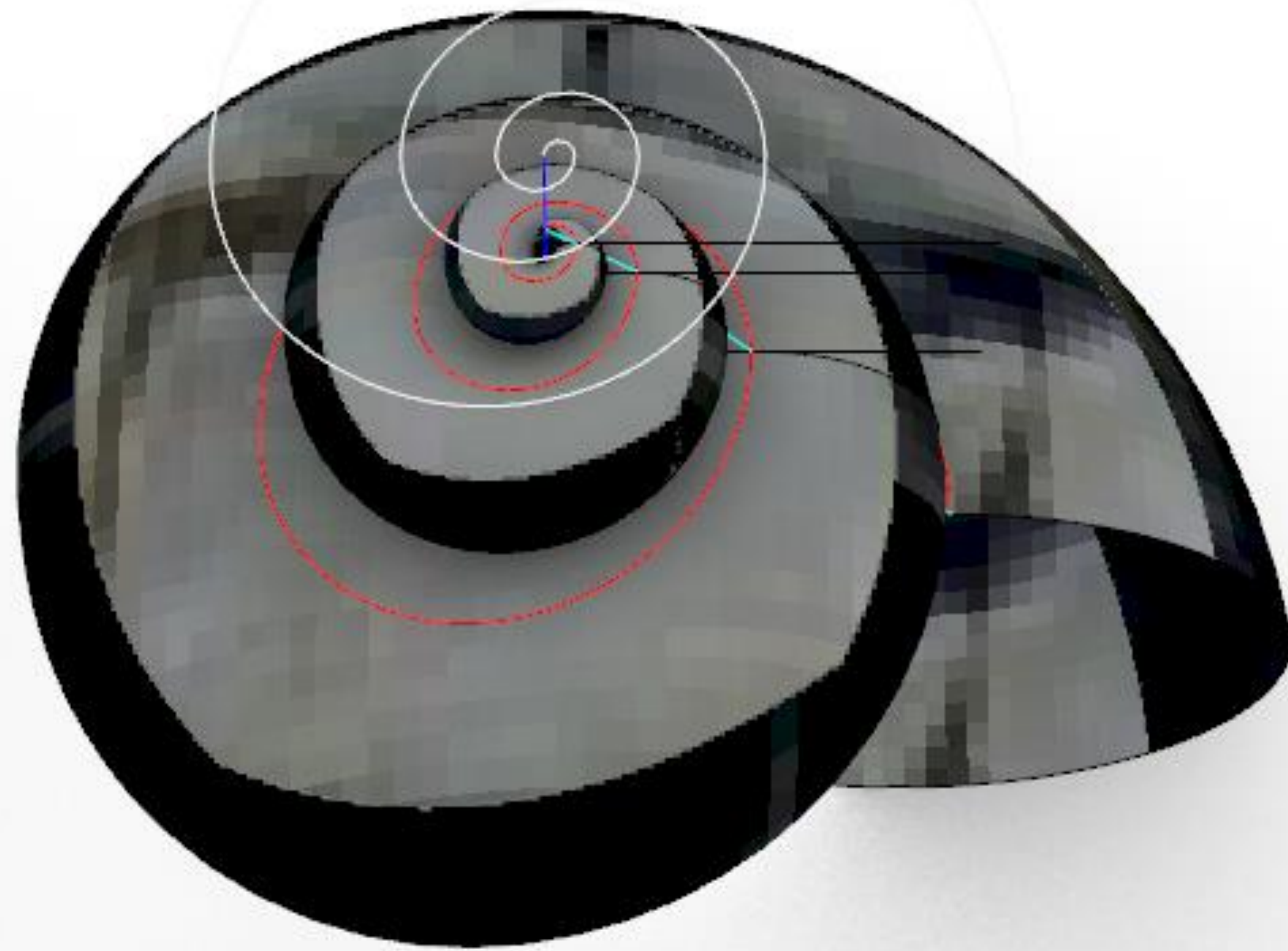
Exerc. 4.4 – Caracol



Exerc. 4.5 – Caramujo



# Exerc. 3.5 – Caramujo

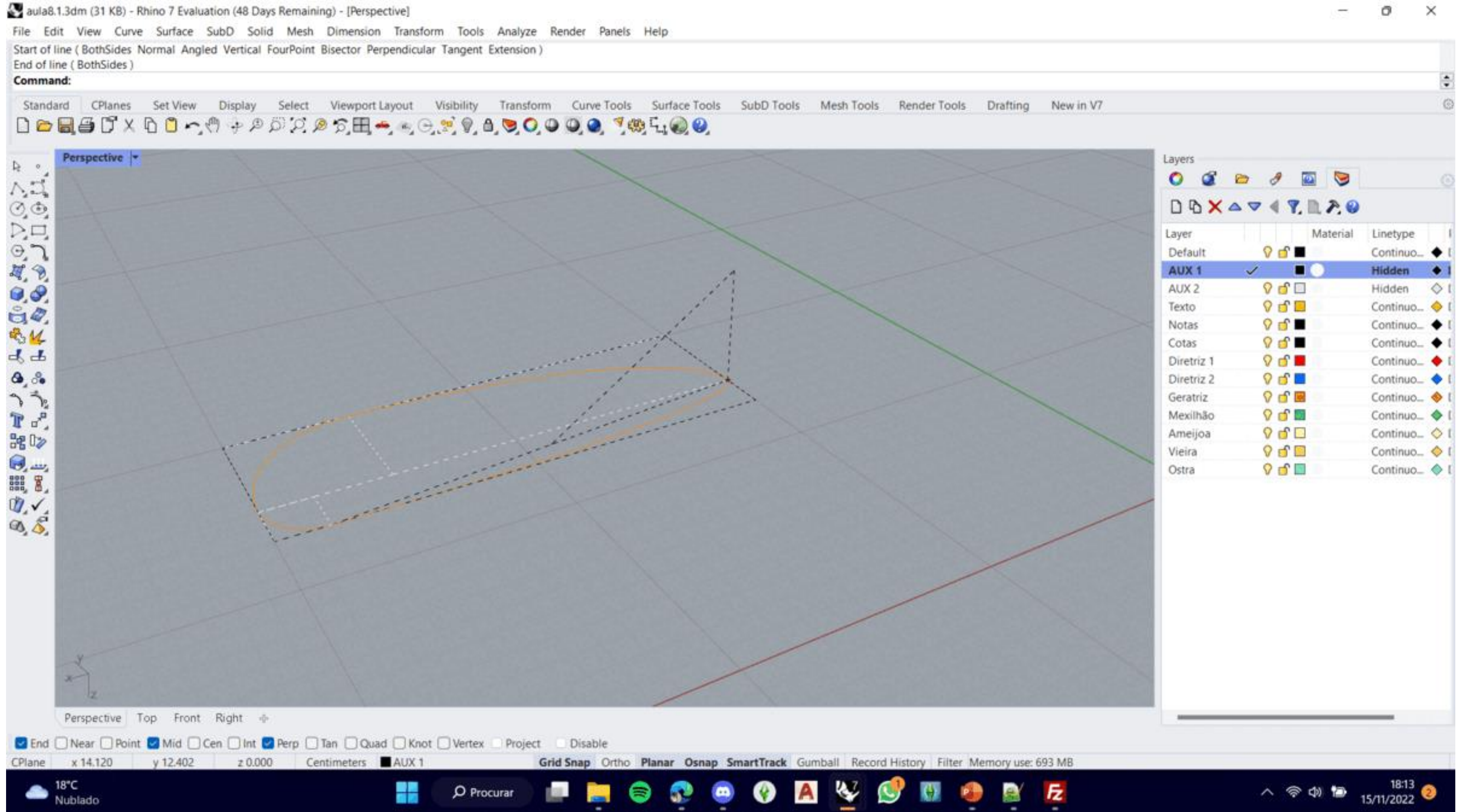


**Ex 2.5 - Caramujo**

Exerc. 4.5 – Caramujo

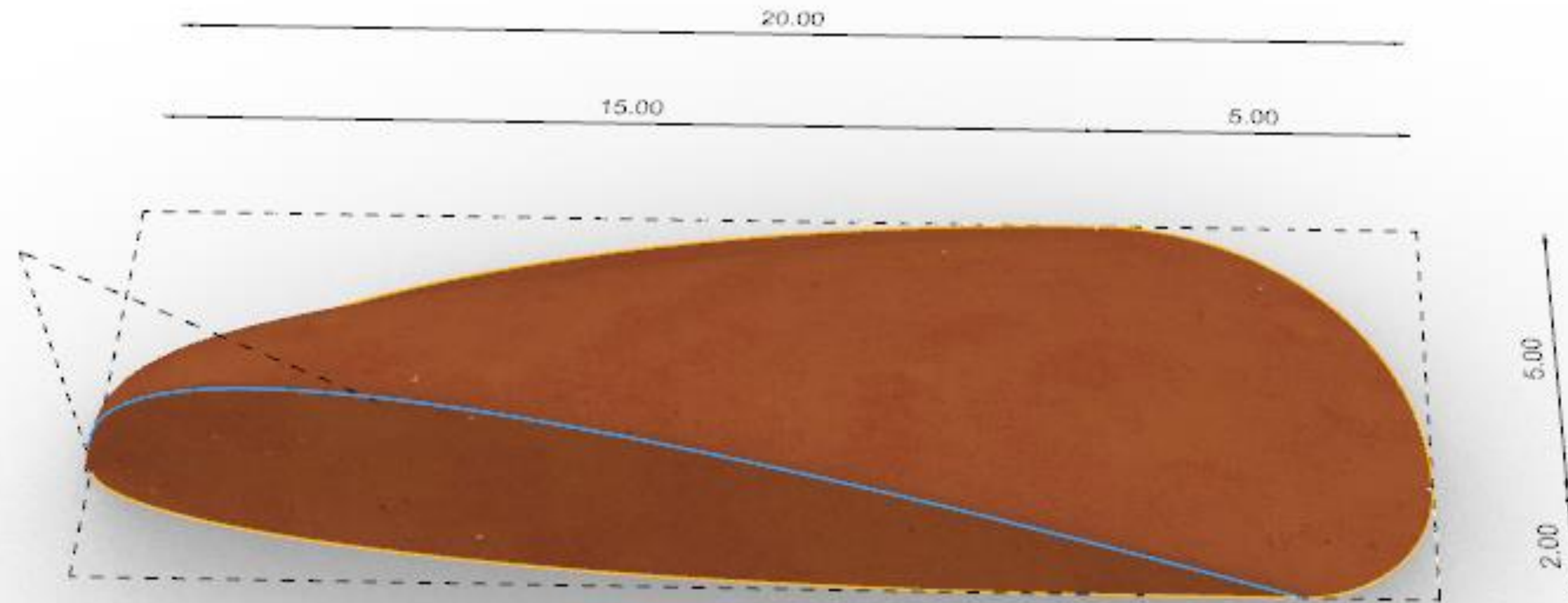


Exerc. 4.6 – Mexilhão



# Exerc. 4.6 – Mexilhão



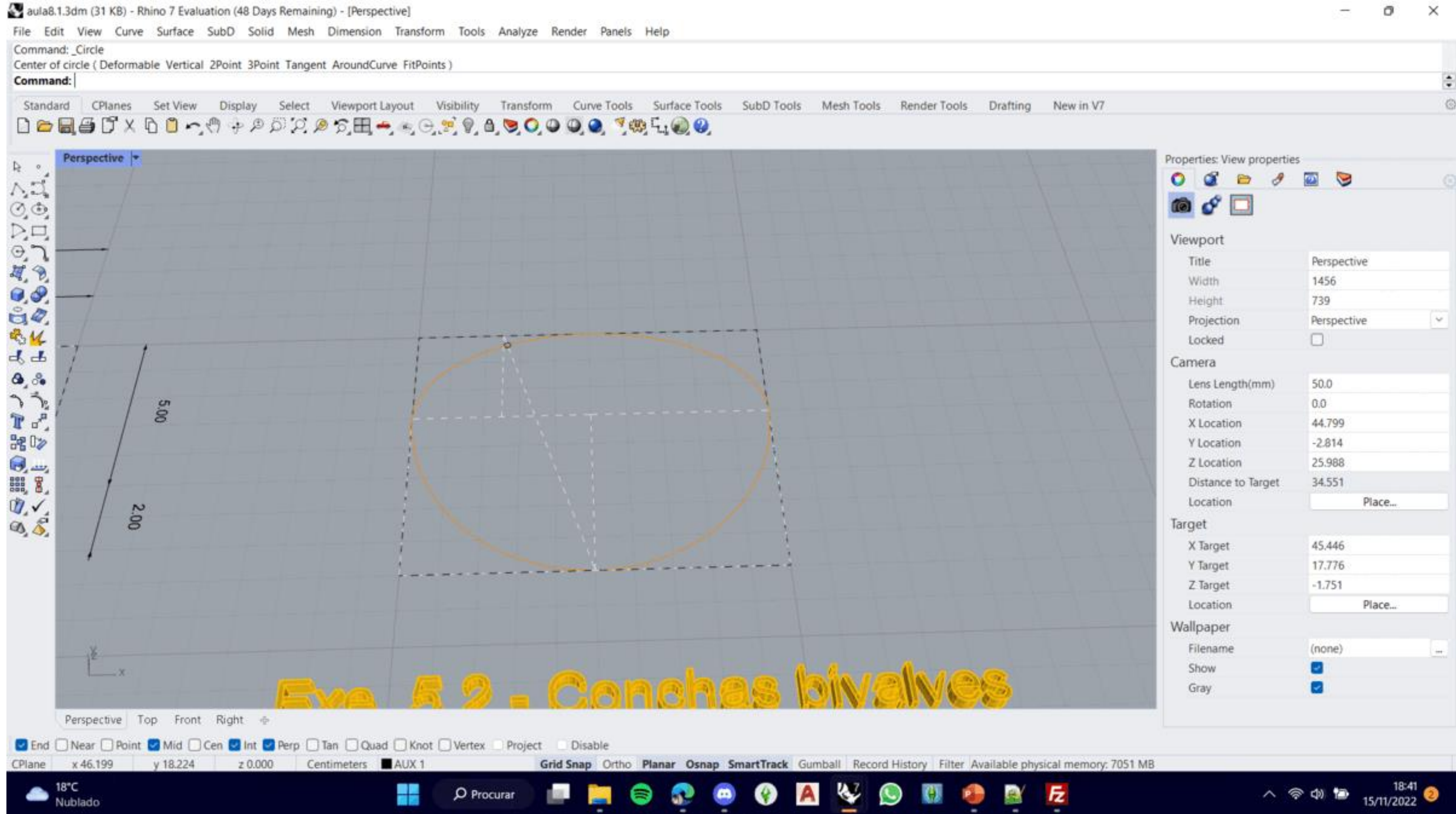


**Exe. 5.1 - Conchas bivalves  
Mexilhão**

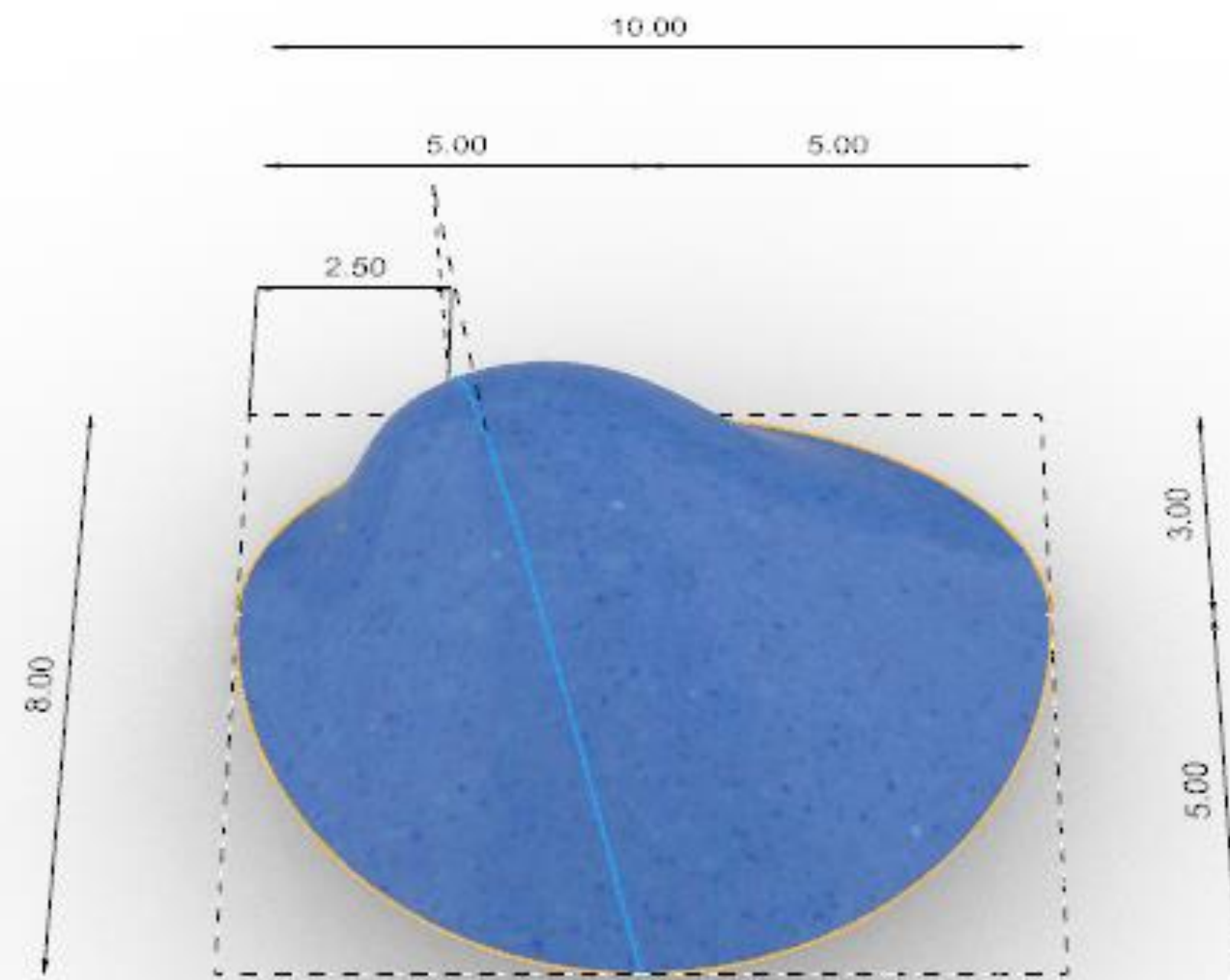
Exerc. 4.6 – Mexilhão



Exerc. 4.7 – Amejioa



# Exerc. 4.7 – Ameijoas

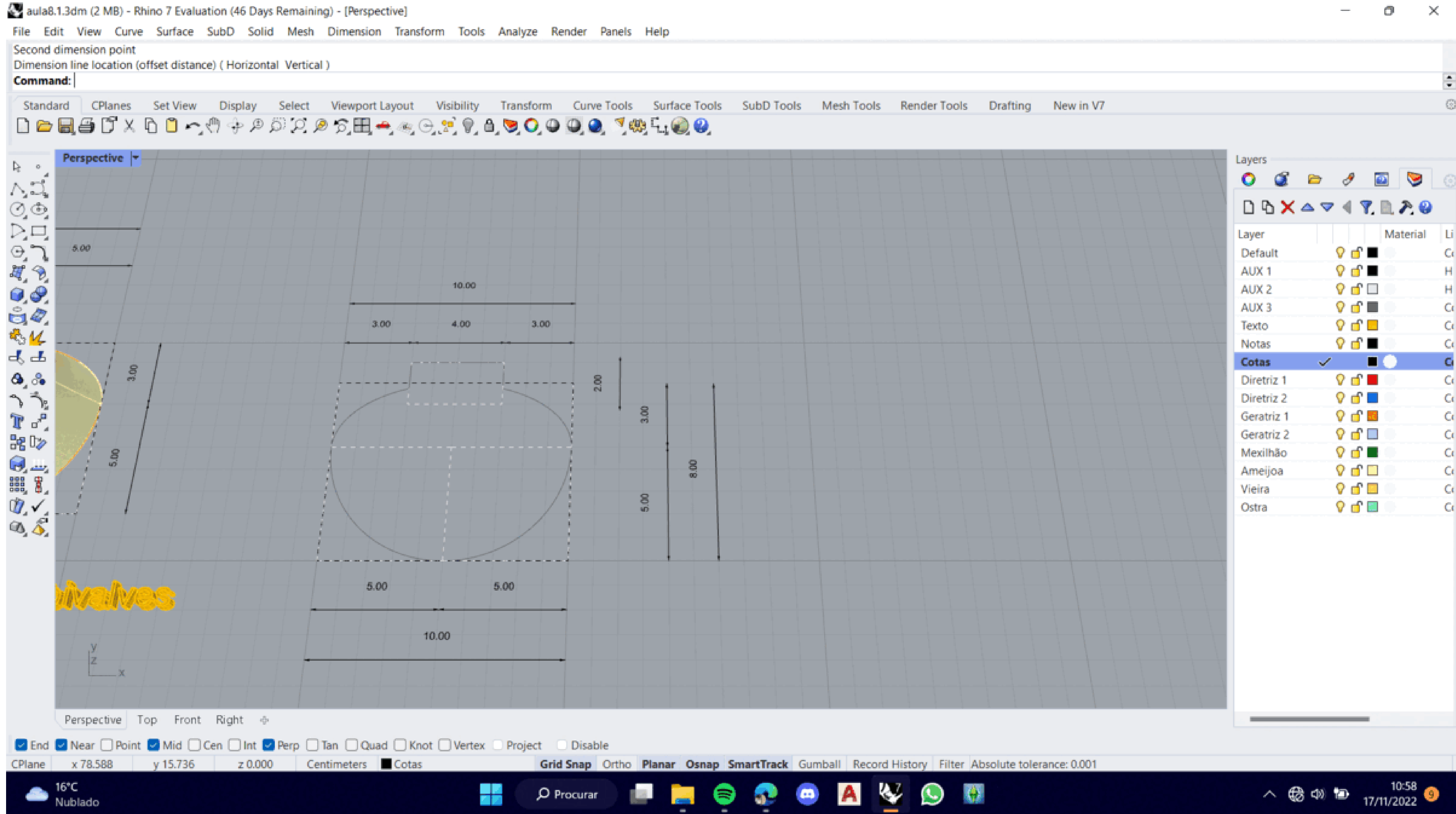


**Exe. 5.2 - Conchas bivalves  
Ameijoa**

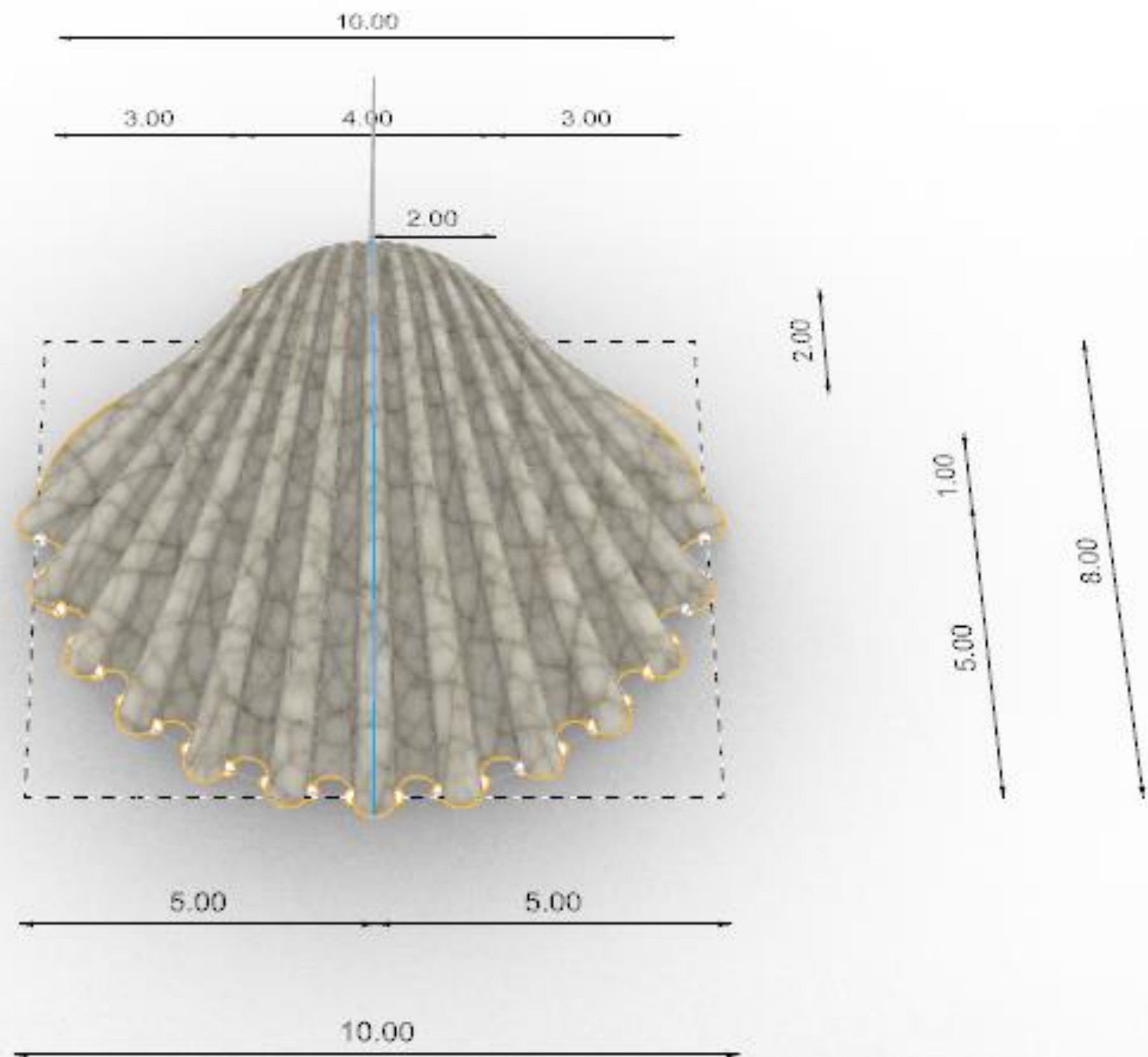
Exerc. 4.7 – Ameijoa



Exerc. 4.8 – Vieira



# Exerc. 4.8 – Vieira



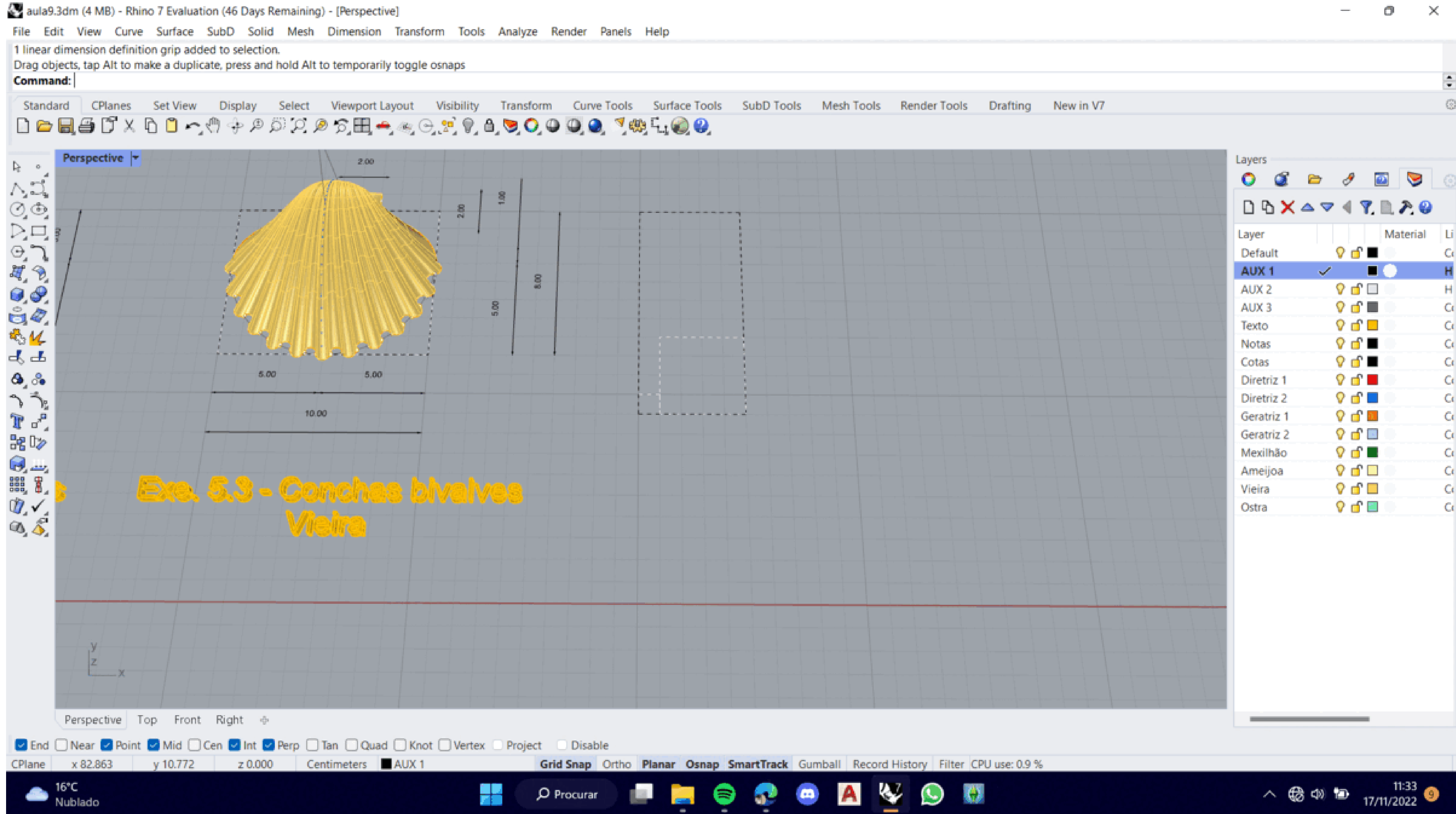
**Exe. 5.3 - Conchas bivalves  
Vieira**

Exerc. 4.8 – Vieira

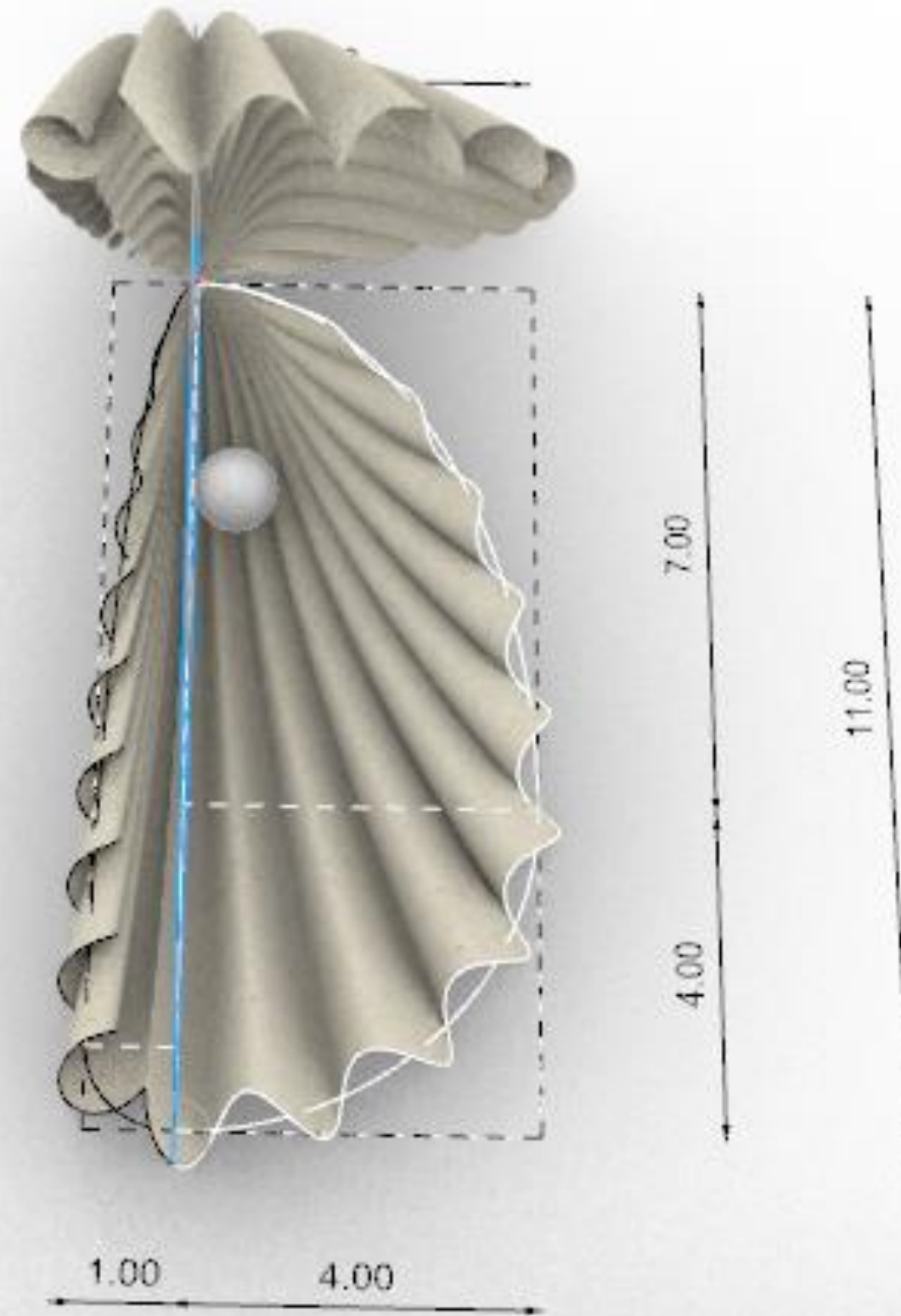


Exerc. 4.9 – Ostra





# Exerc. 4.9 – Ostra

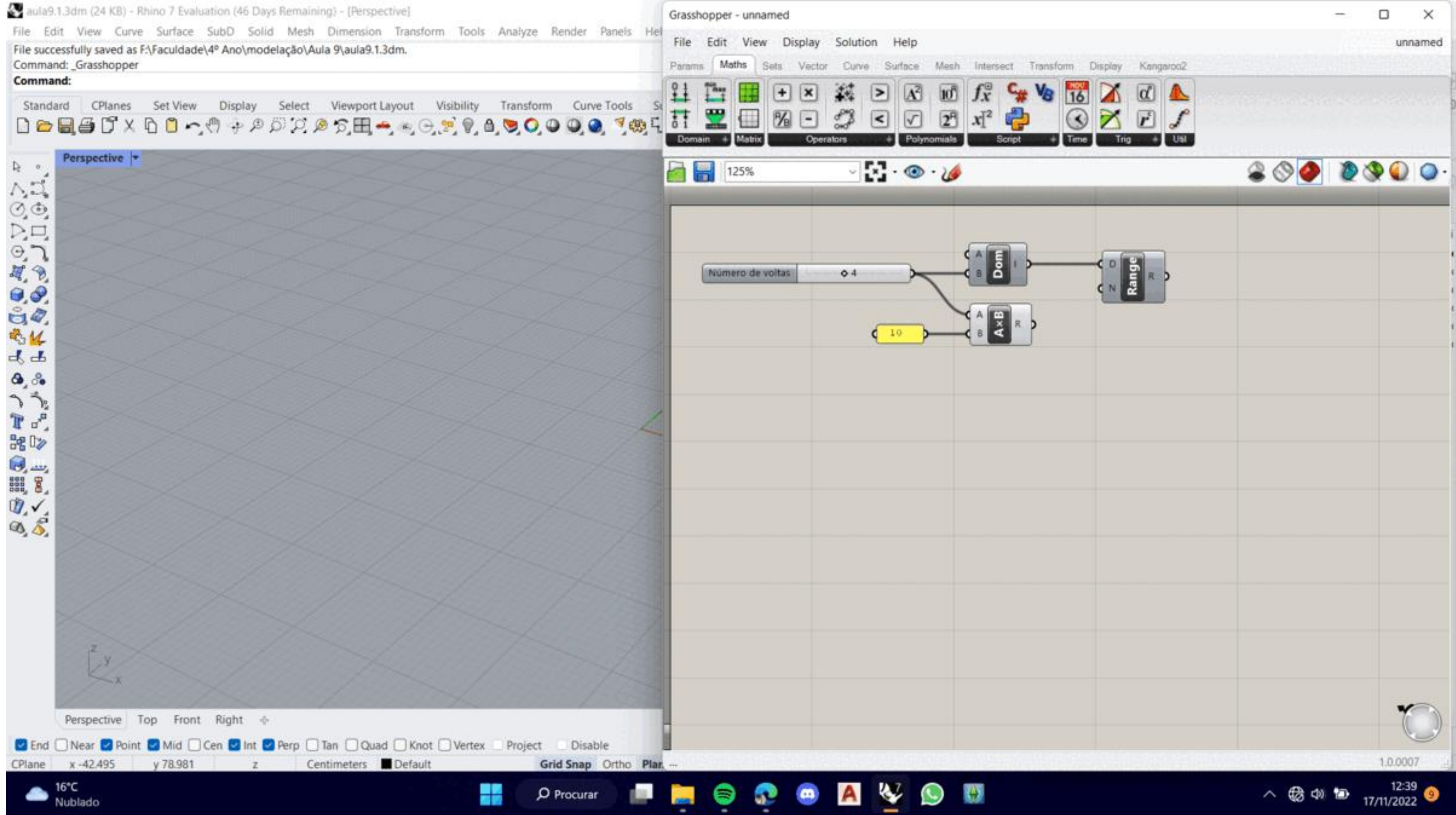


**Exe. 5.3 - Conchas bivalves**  
**Ostra**

Exerc. 4.9 – Ostra



Exerc. 4.10 – Caramujo Grasshopper



# Exerc. 4.10 – Caramujo Grasshopper

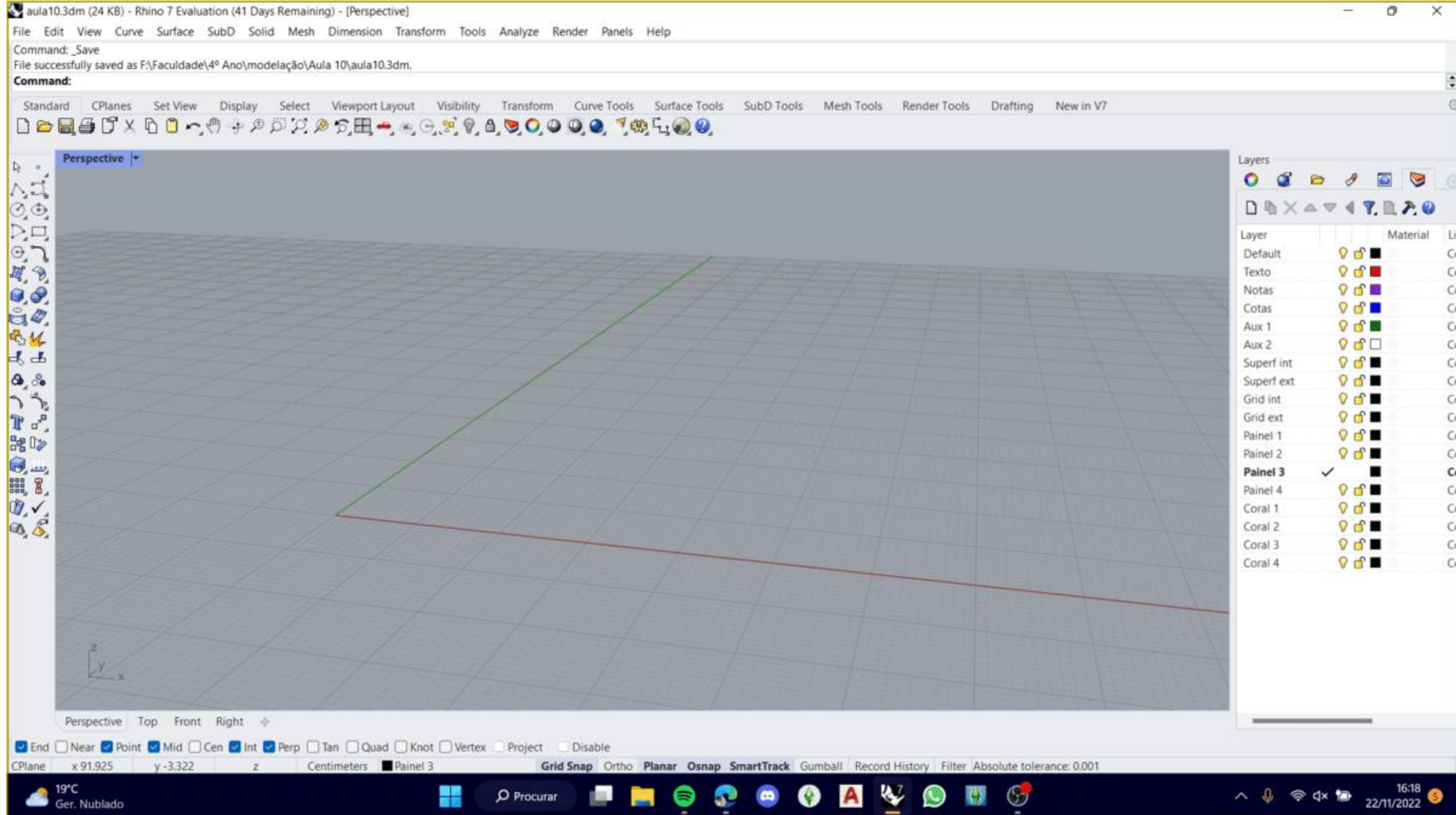


Exerc. 4.10 – Caramujo Grasshopper

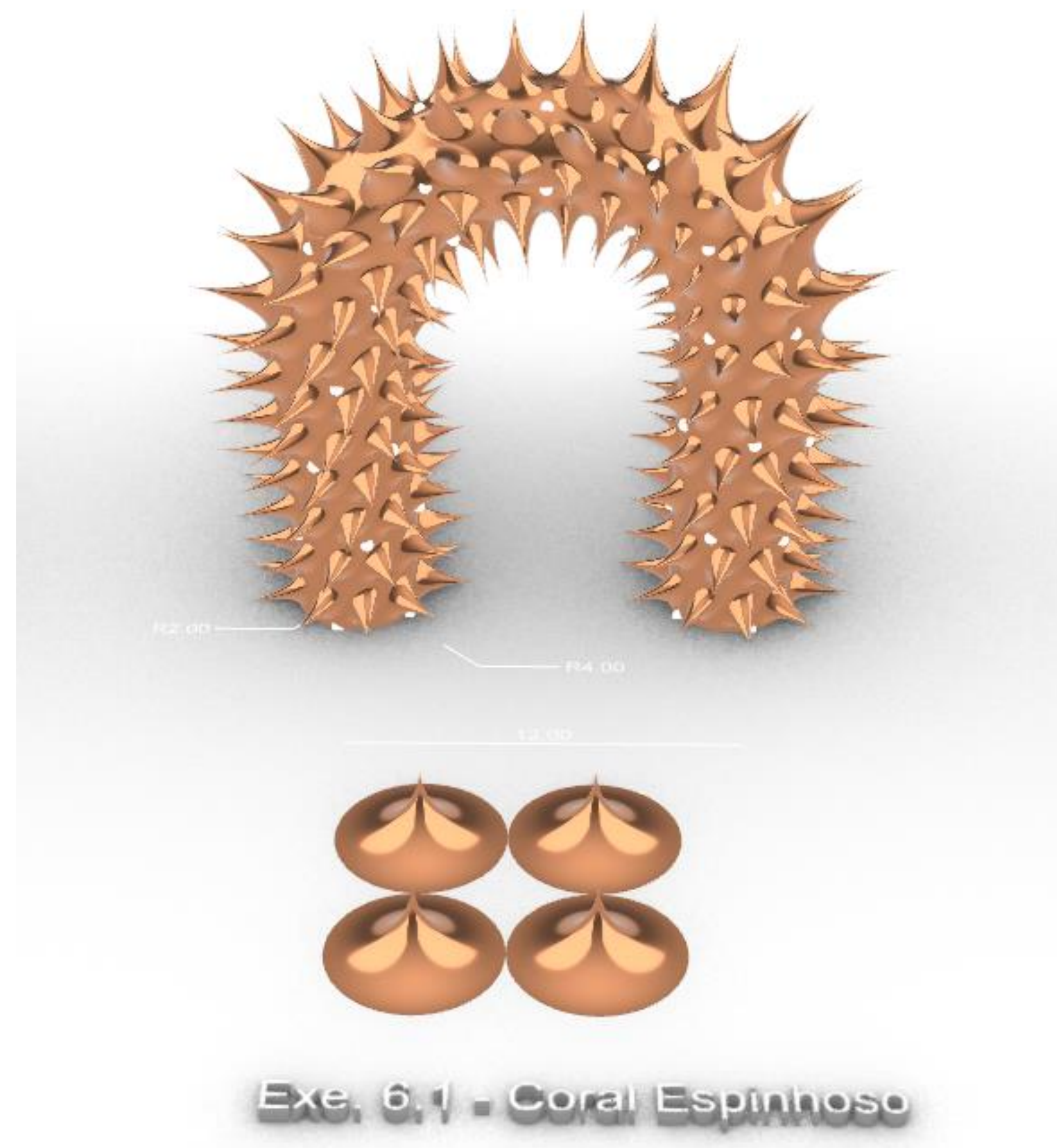


# 5- Exercícios Corais



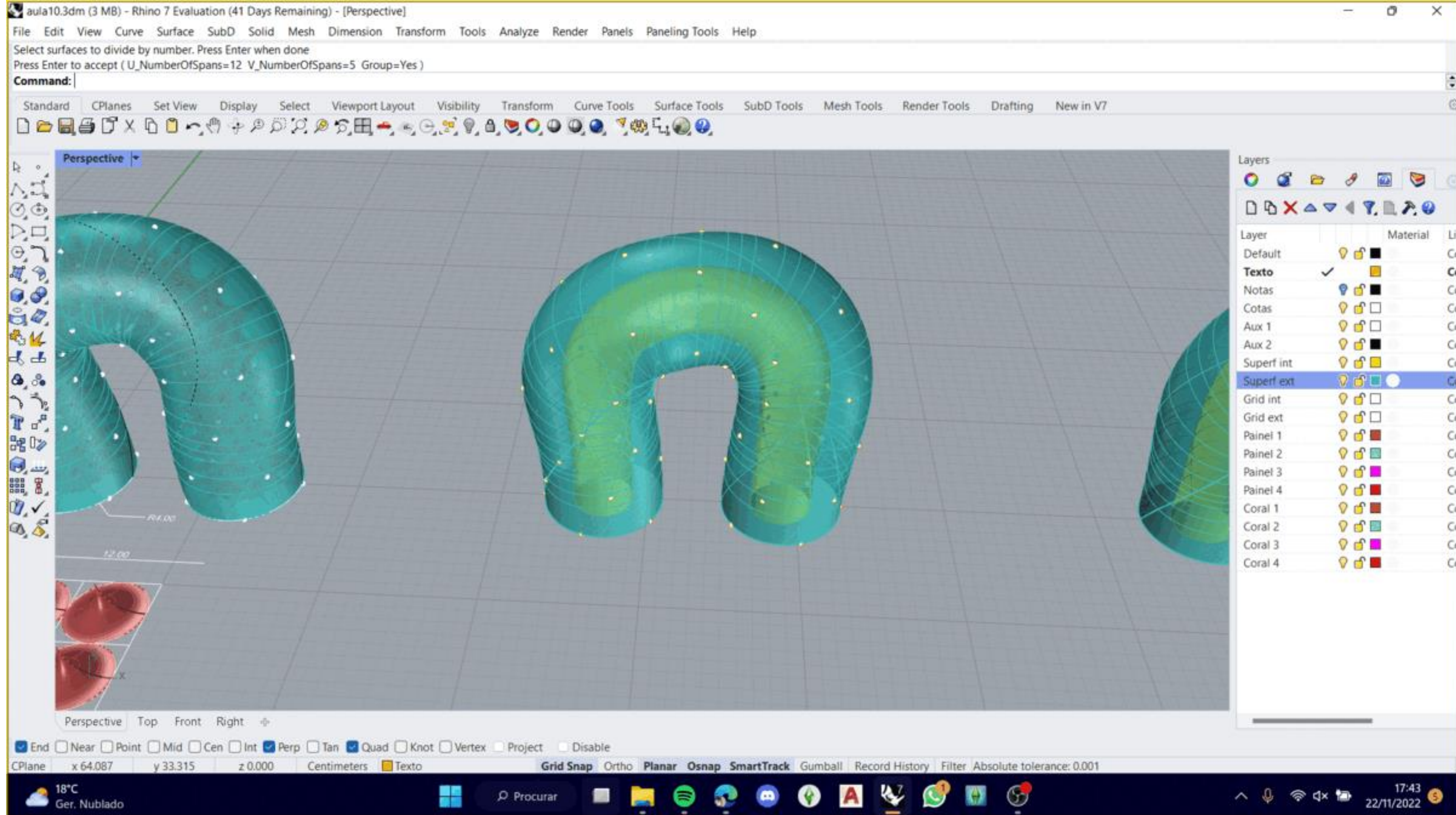


# Exerc. 5.1 – Coral espinhoso

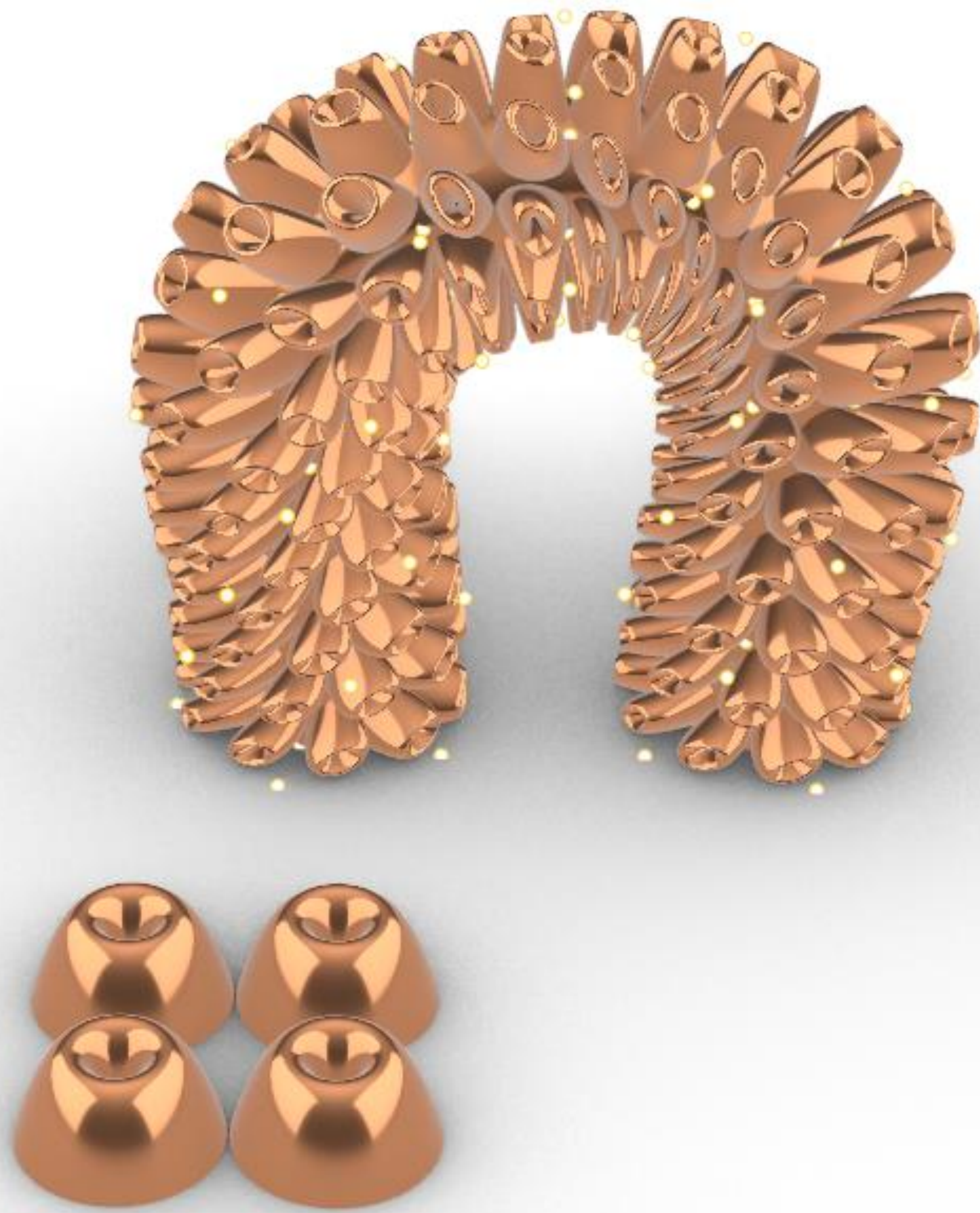


Exerc. 5.1 – Coral espinhoso



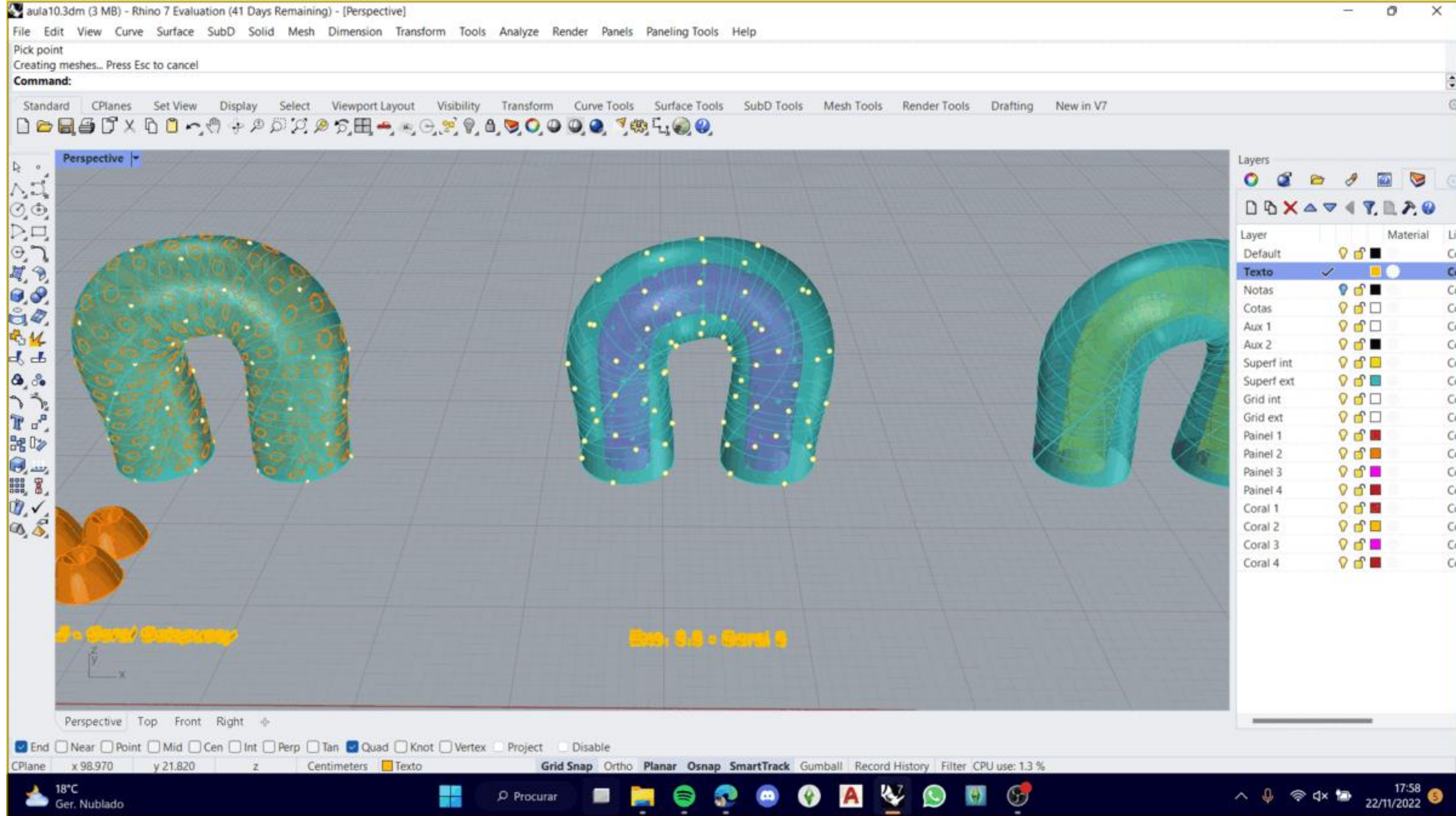


# Exerc. 5.2 – Coral octopussy

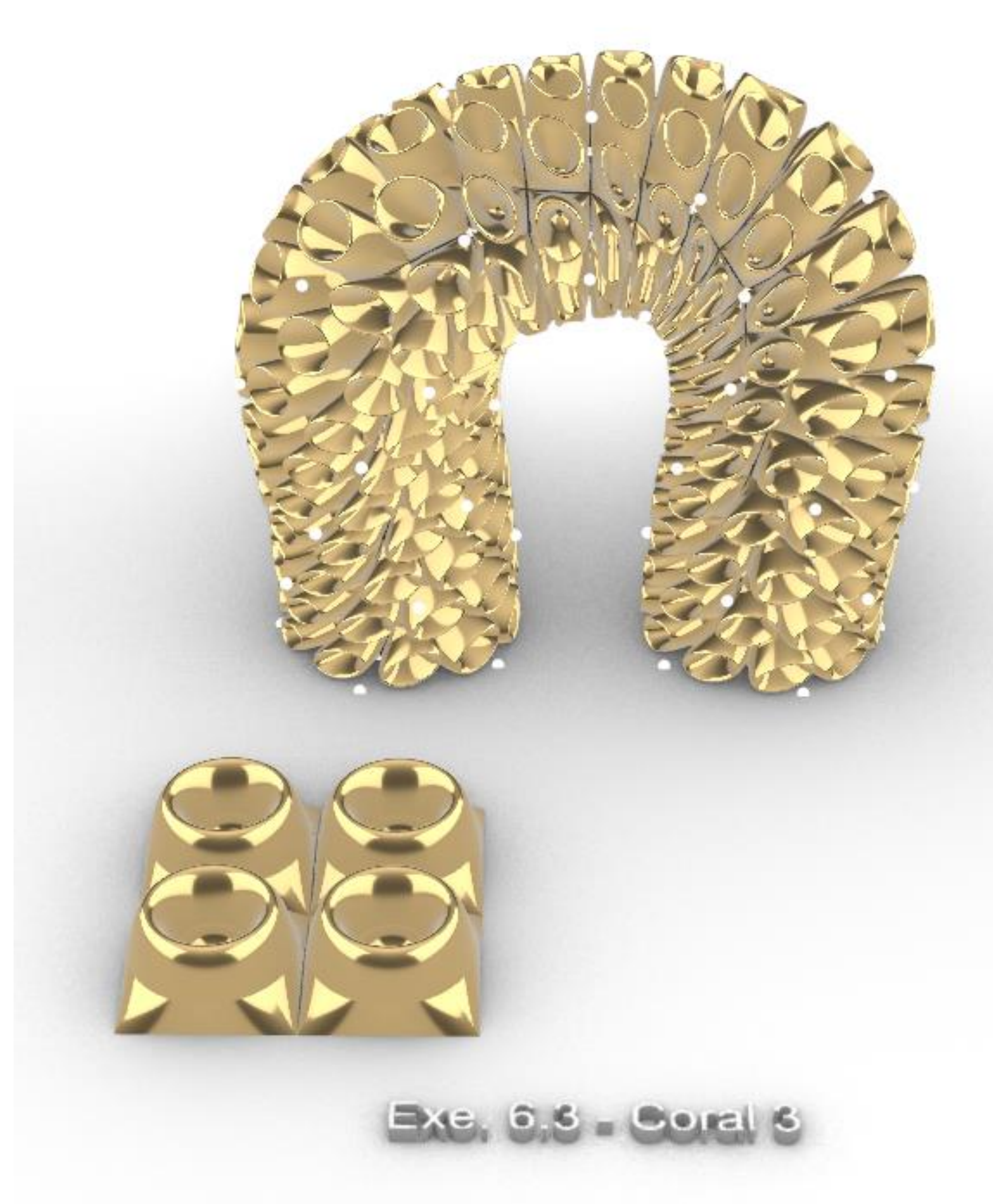


Exe, 6.2 - Coral Octopussy

Exerc. 5.2 – Coral octopussy

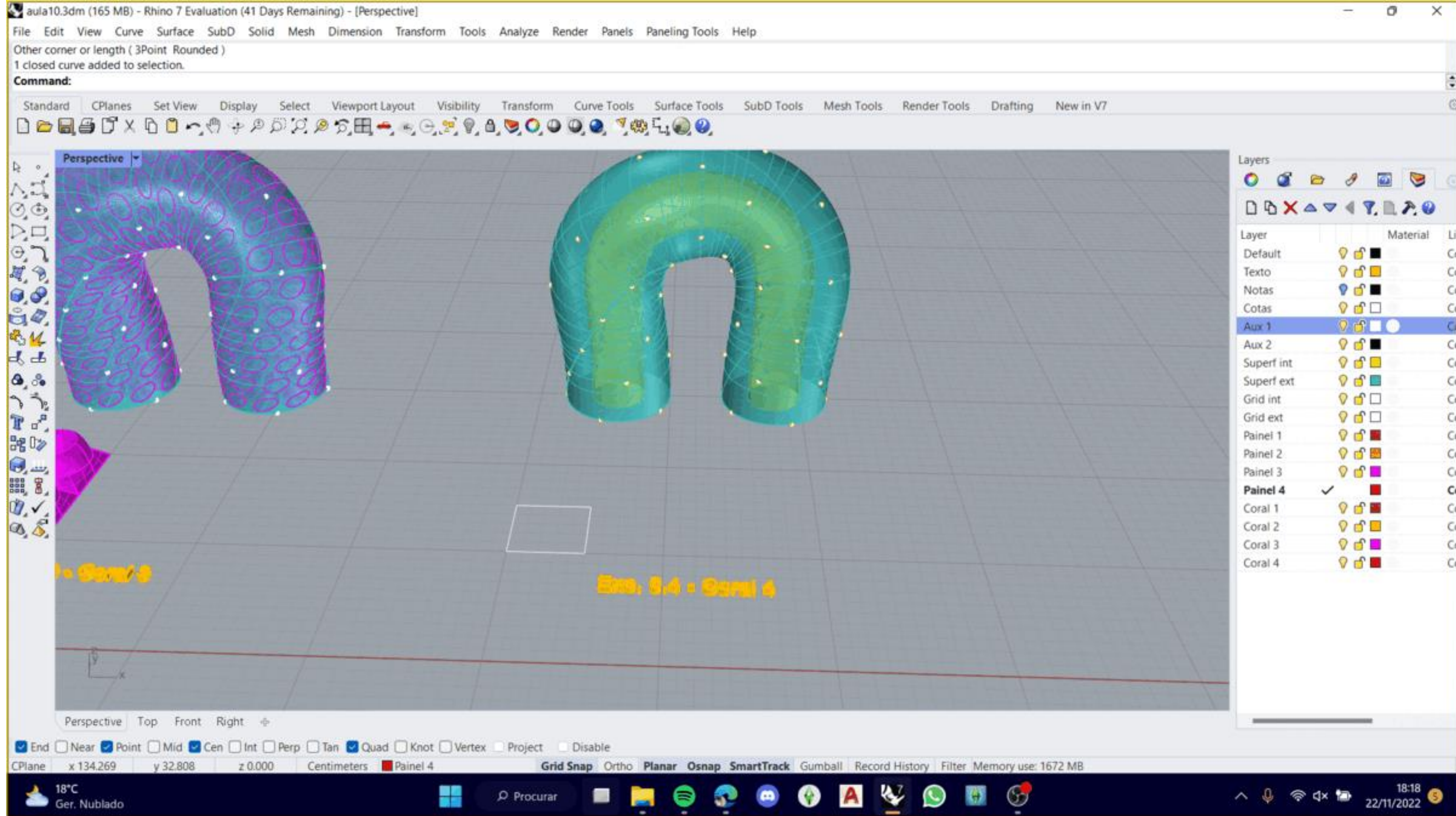


# Exerc. 5.3 – Coral ventosa

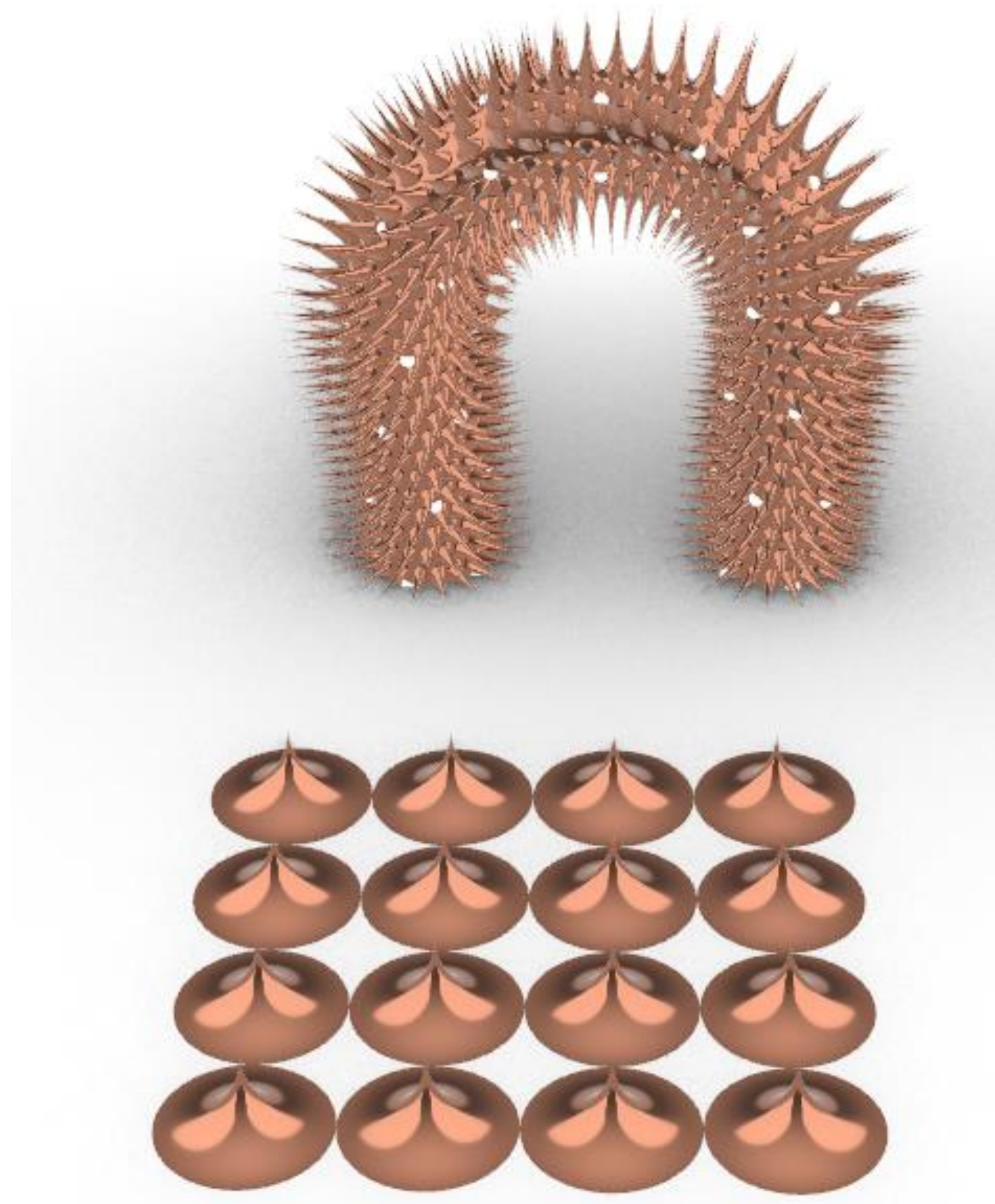


Exe. 6,3 - Coral 3

Exerc. 5.3 – Coral ventosa



# Exerc. 5.4 – Coral espinhoso 2

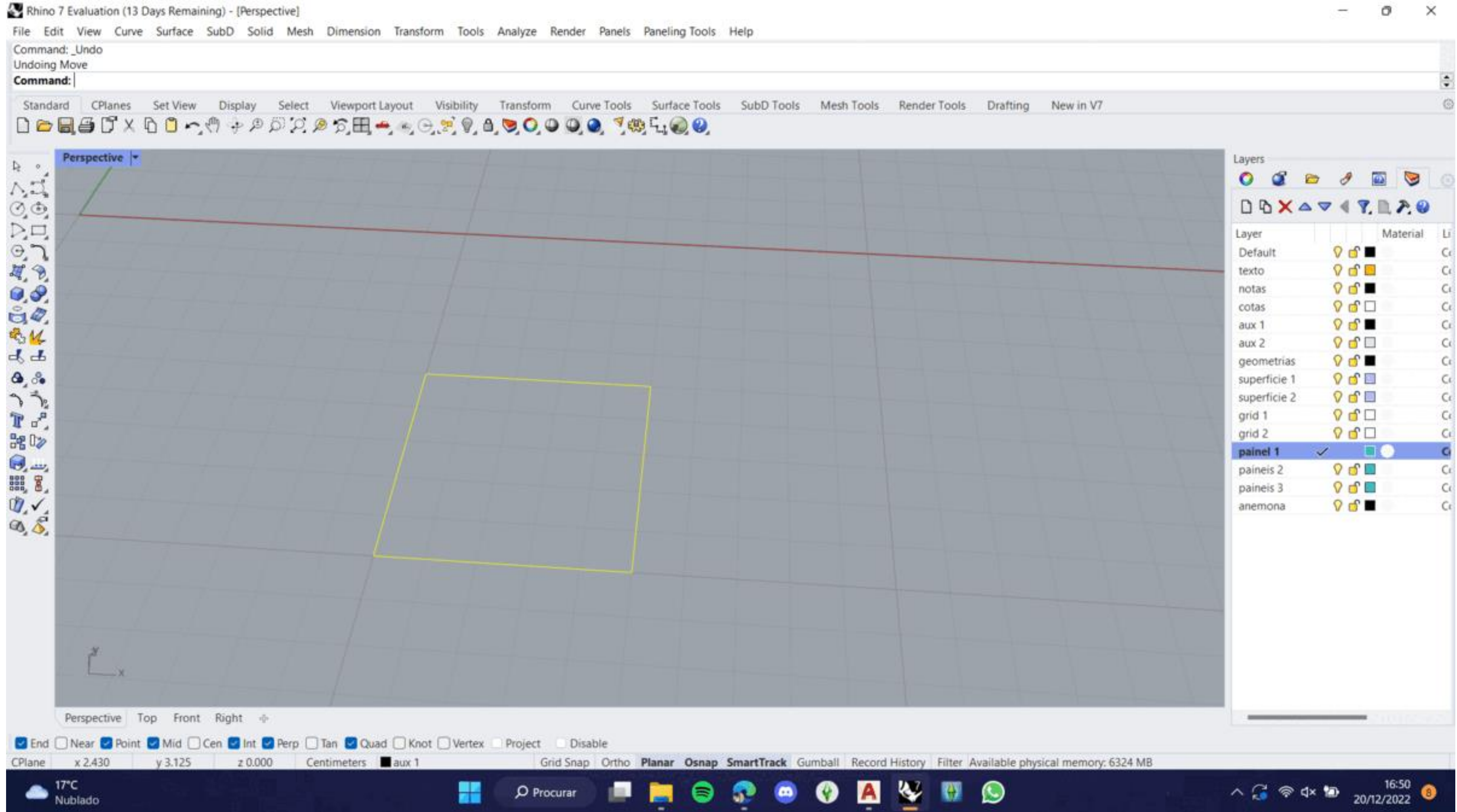


Exe. 6.4 - Coral 4

Exerc. 5.4 – Coral espinhoso 2

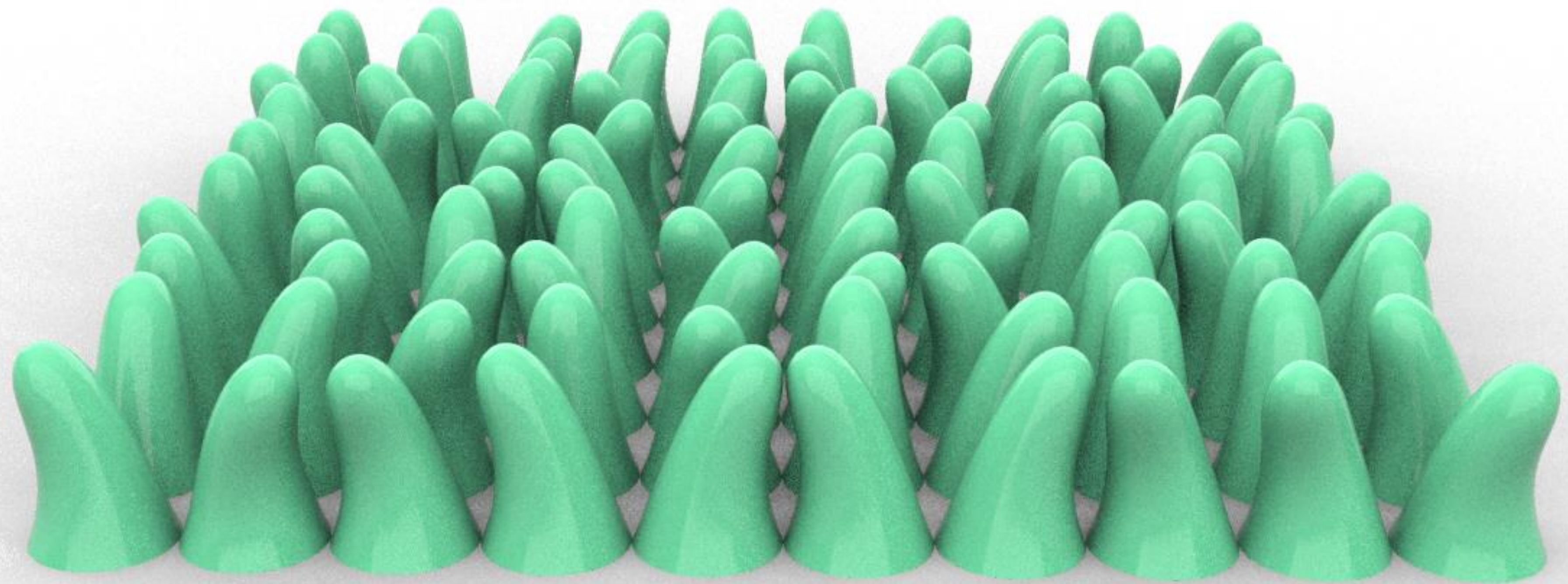


## 6- Exercício Anêmona



# Exerc. 6.1 - Anêmona



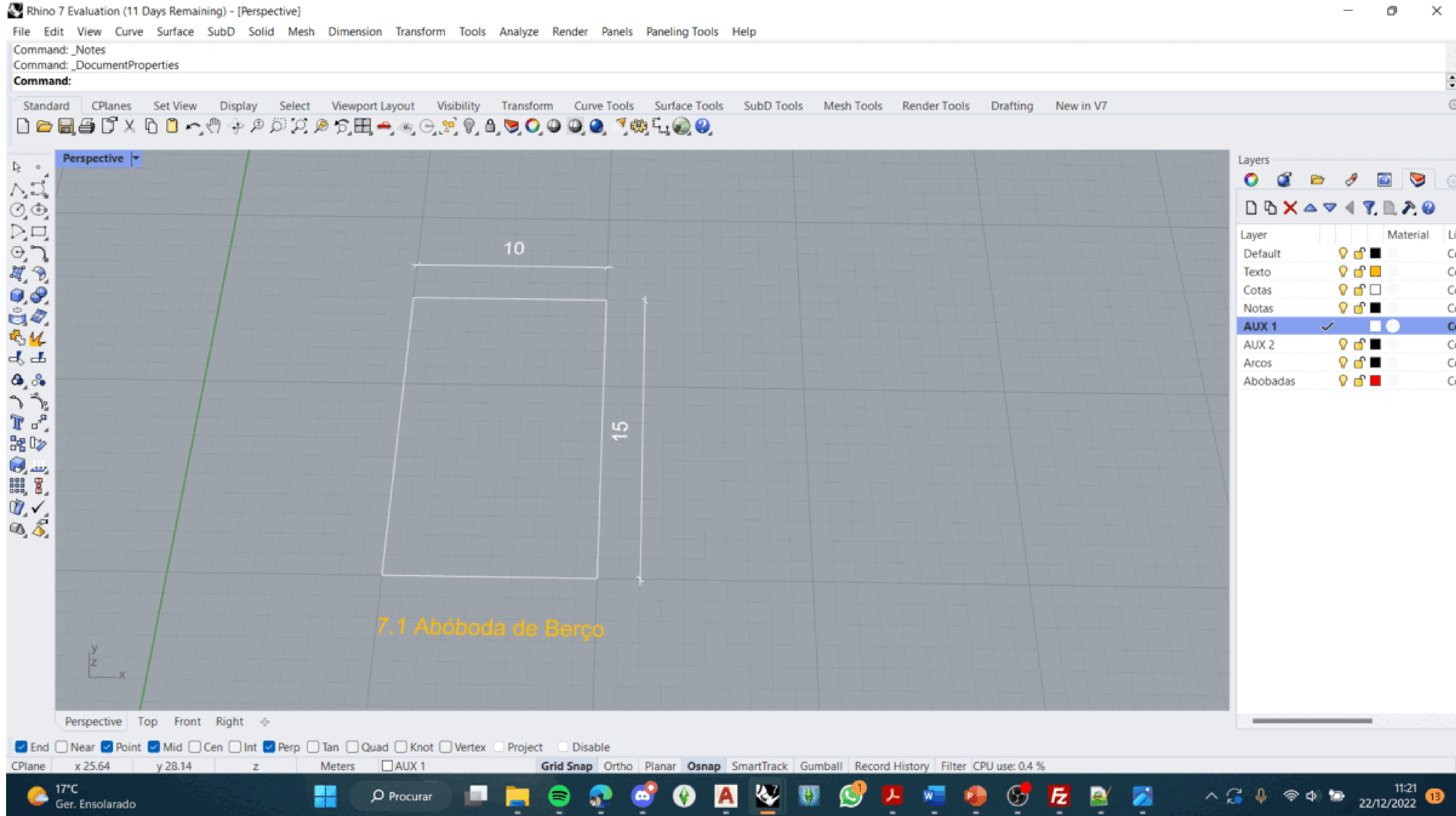


Exerc. 6.1 - Anêmona

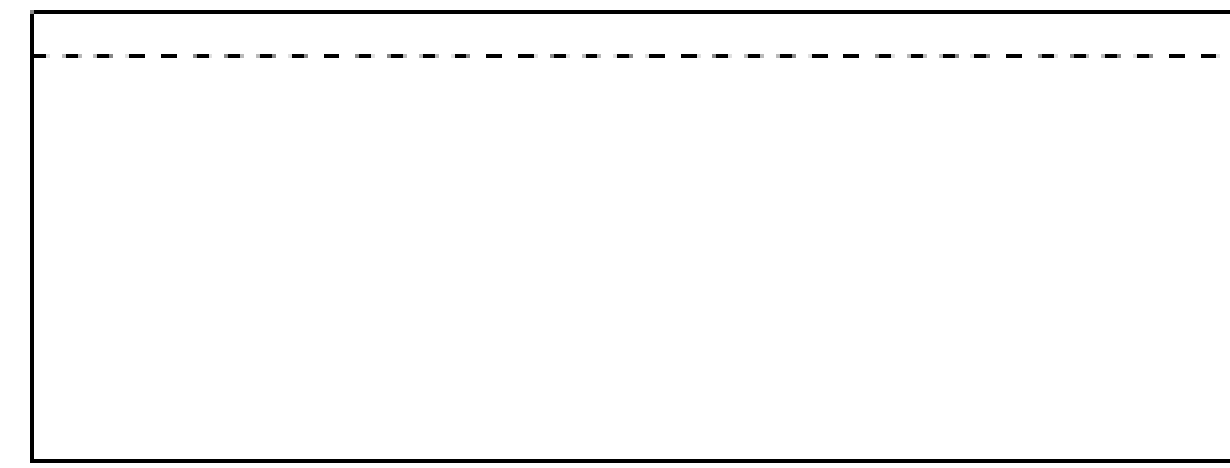
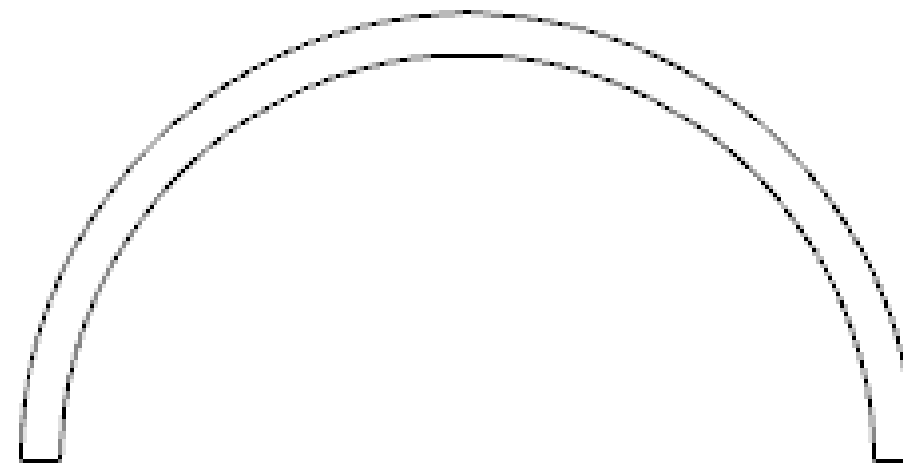
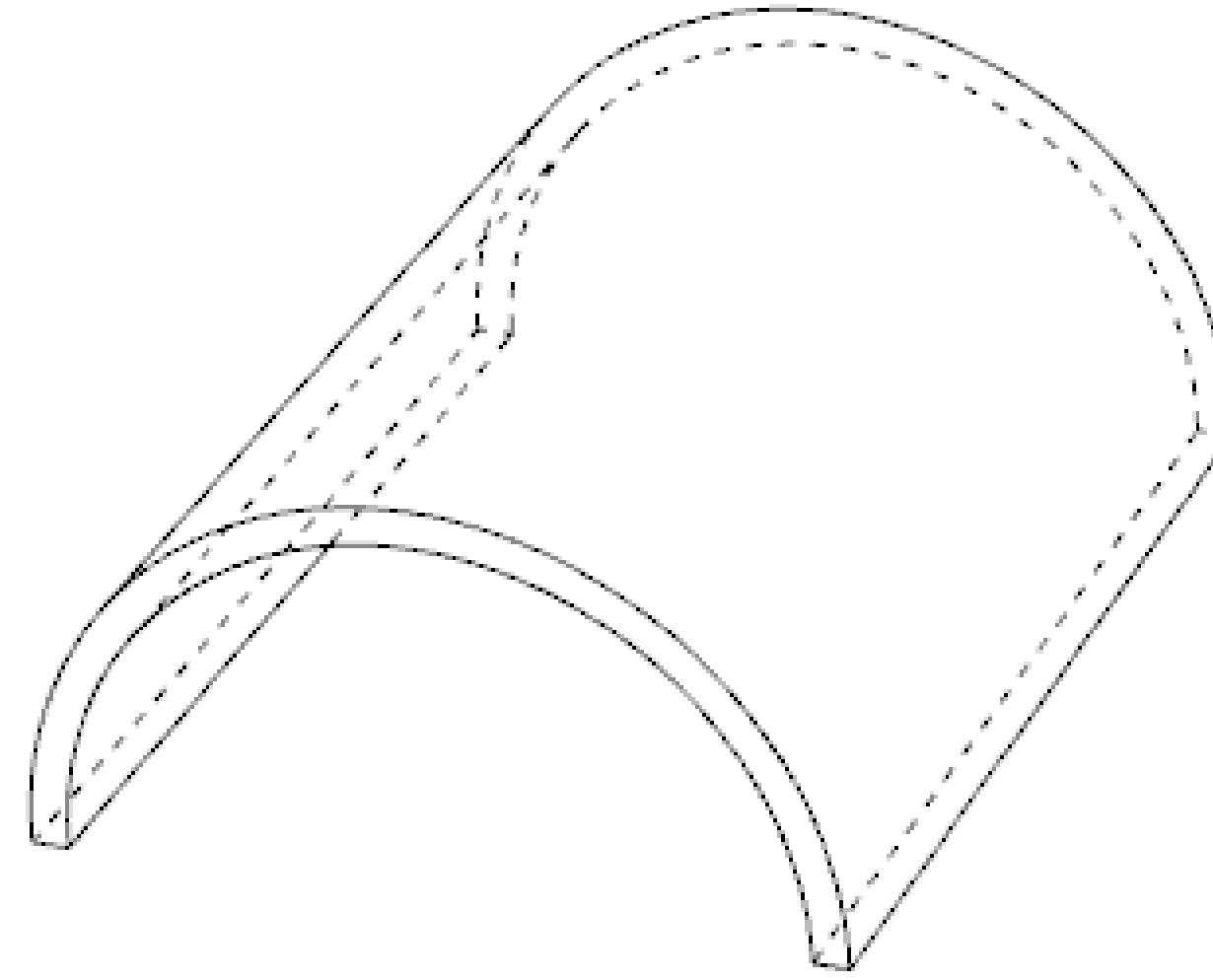
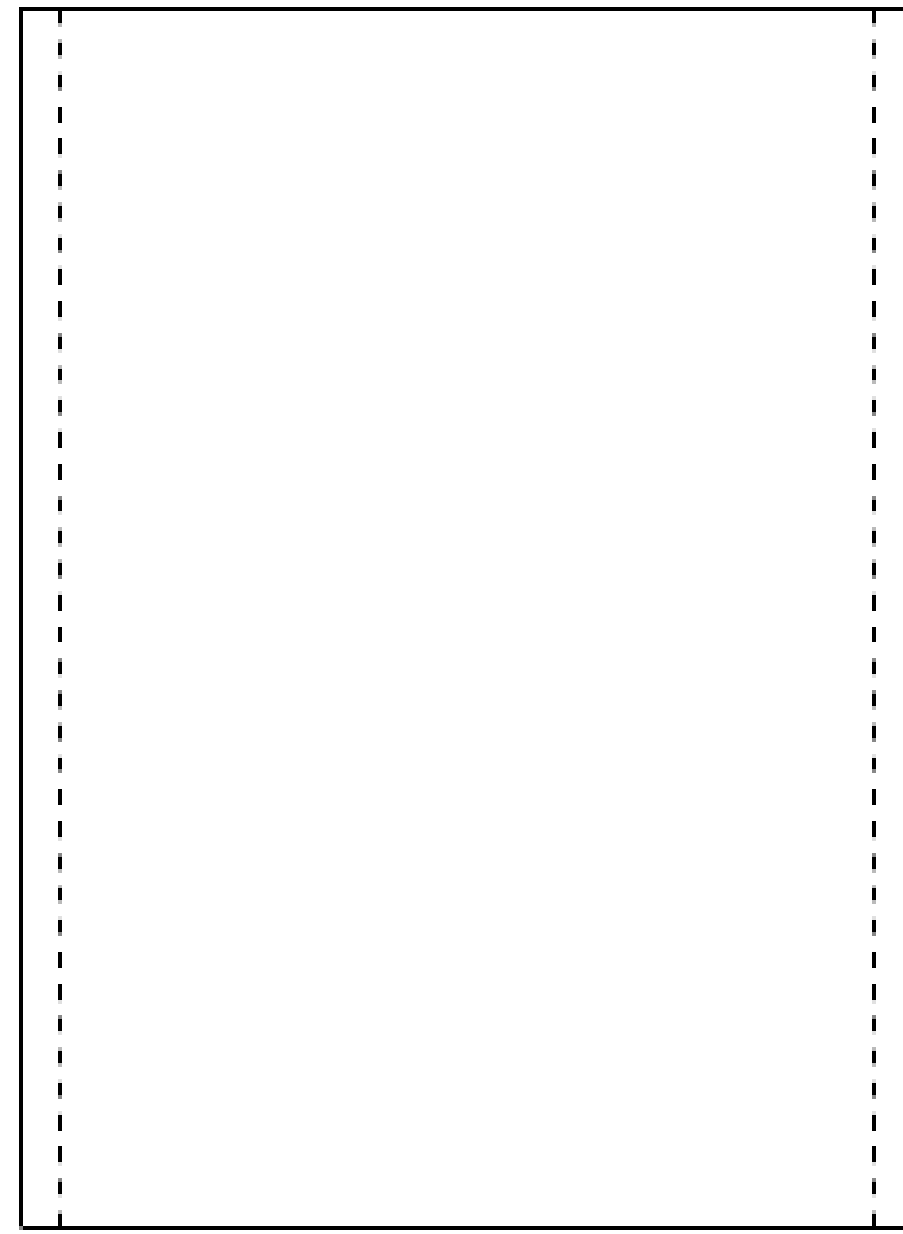


# 7- Exercícios Abóbadas

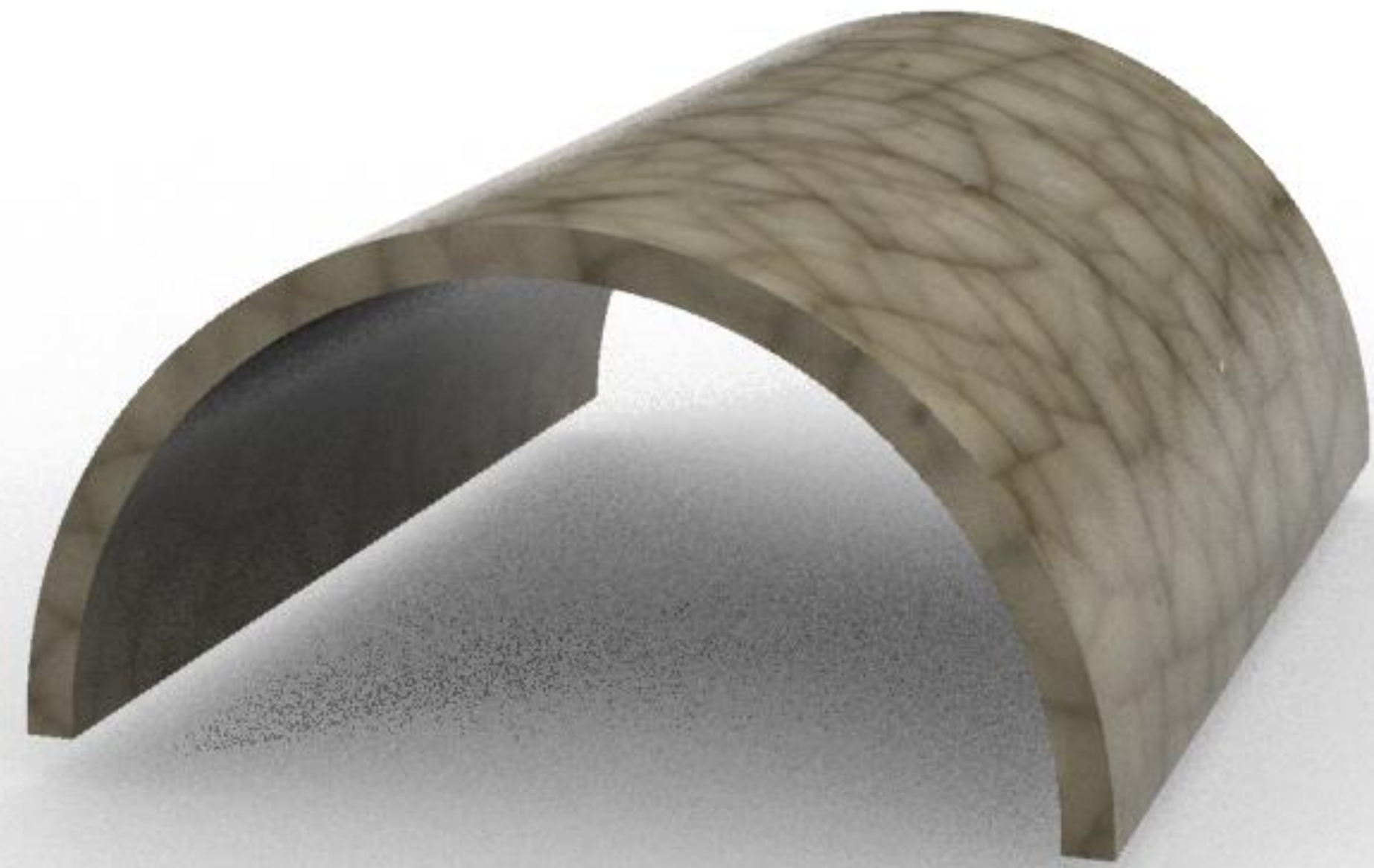




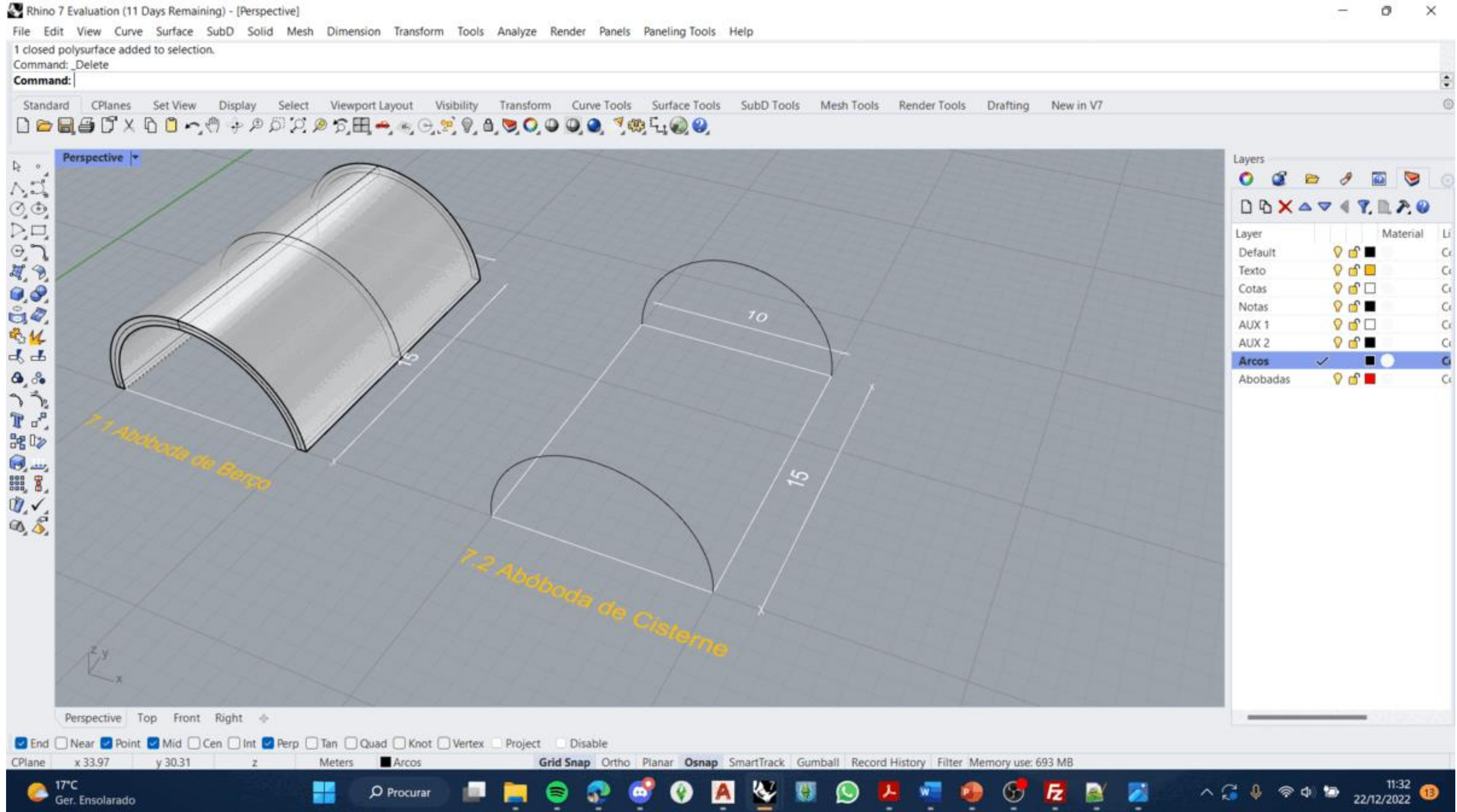
# Exerc. 7.1 – Abóboda de berço



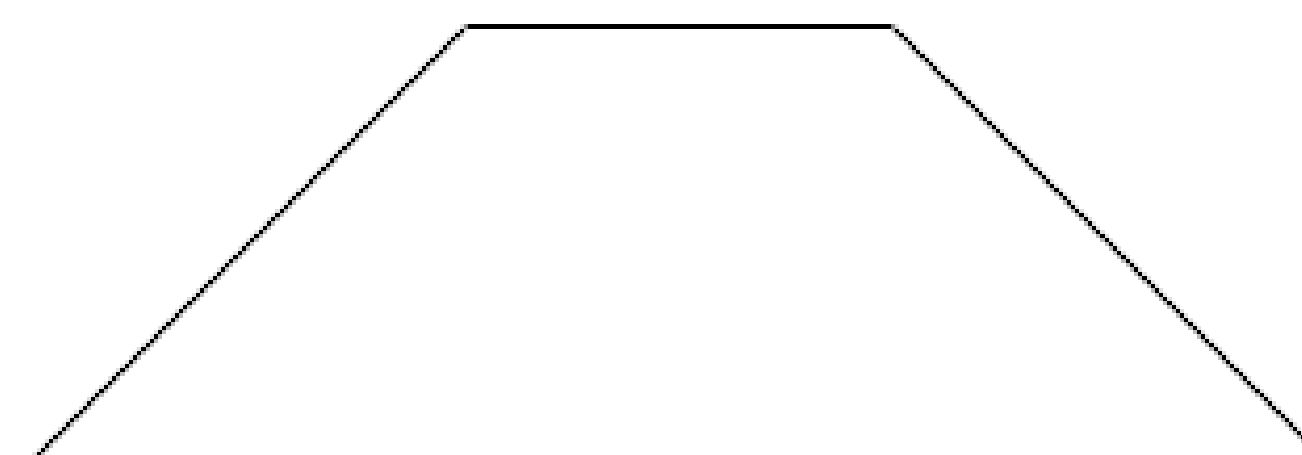
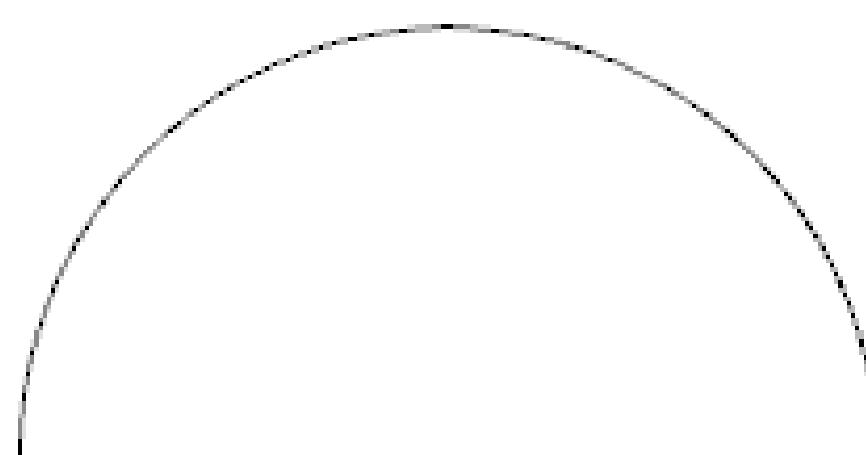
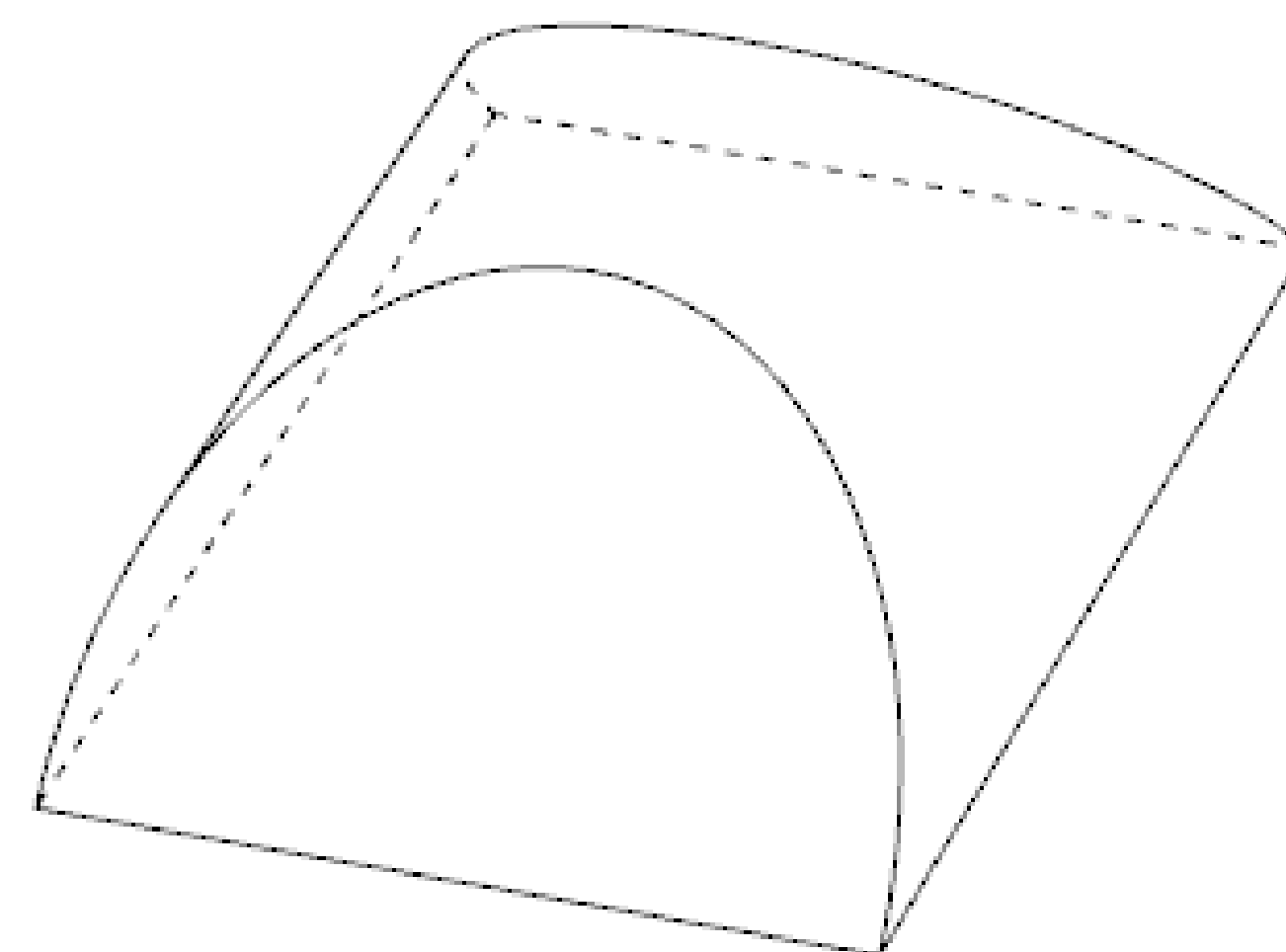
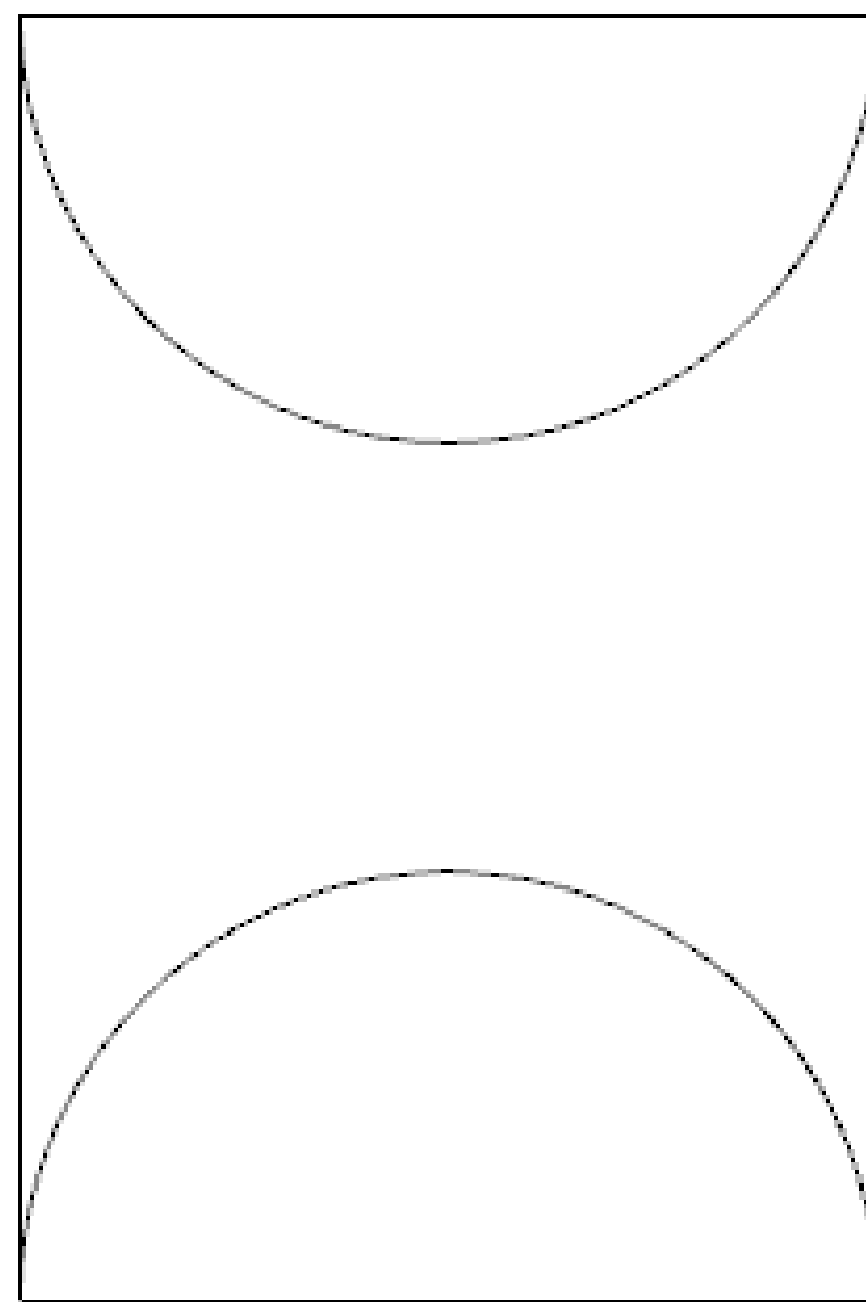
Exerc. 7.1 – Abóbada de berço



Exerc. 7.1 – Abóbada de berço



# Exerc. 7.2 – Abóbada de cisterna

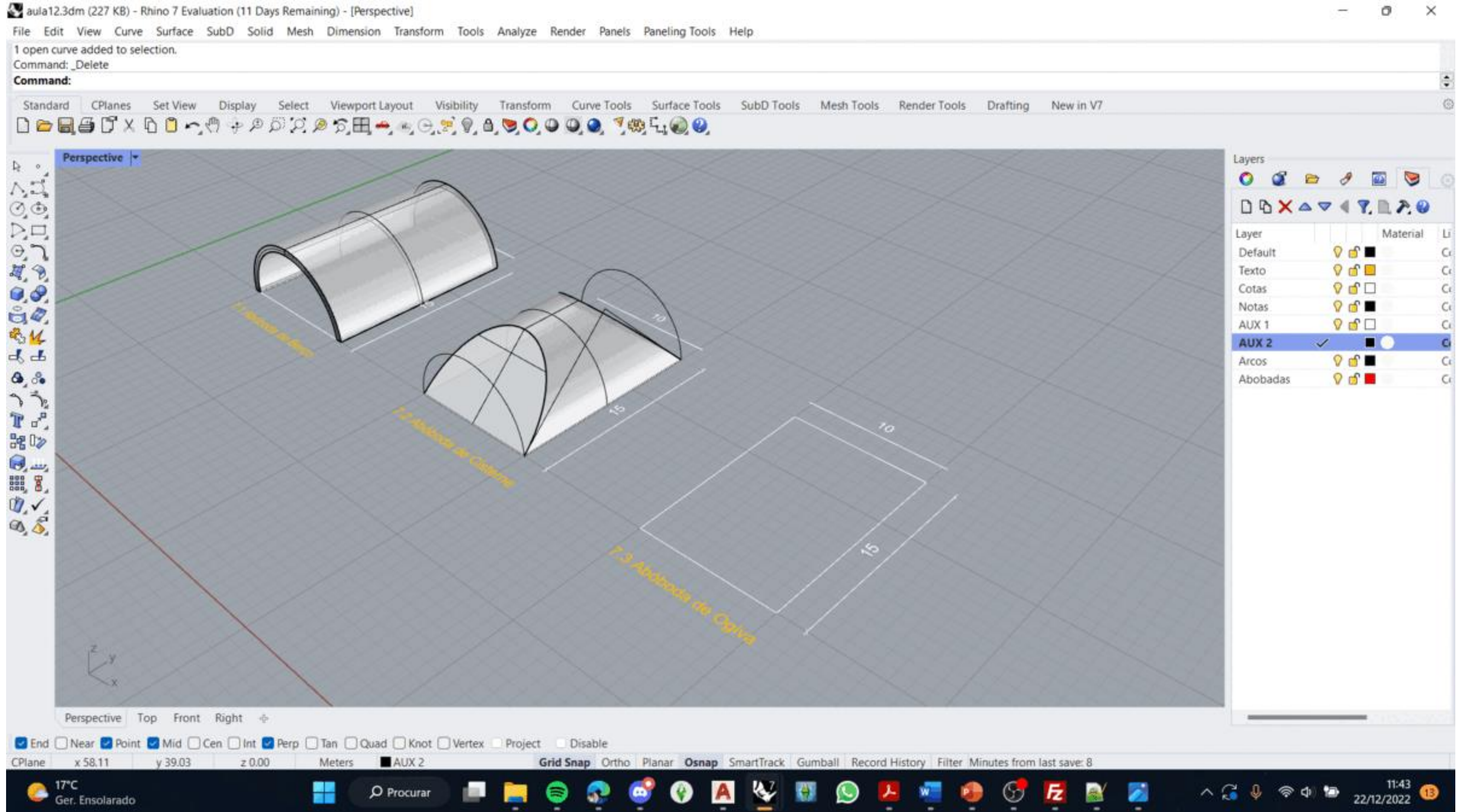


Exerc. 7.2 – Abóbada de cisterna

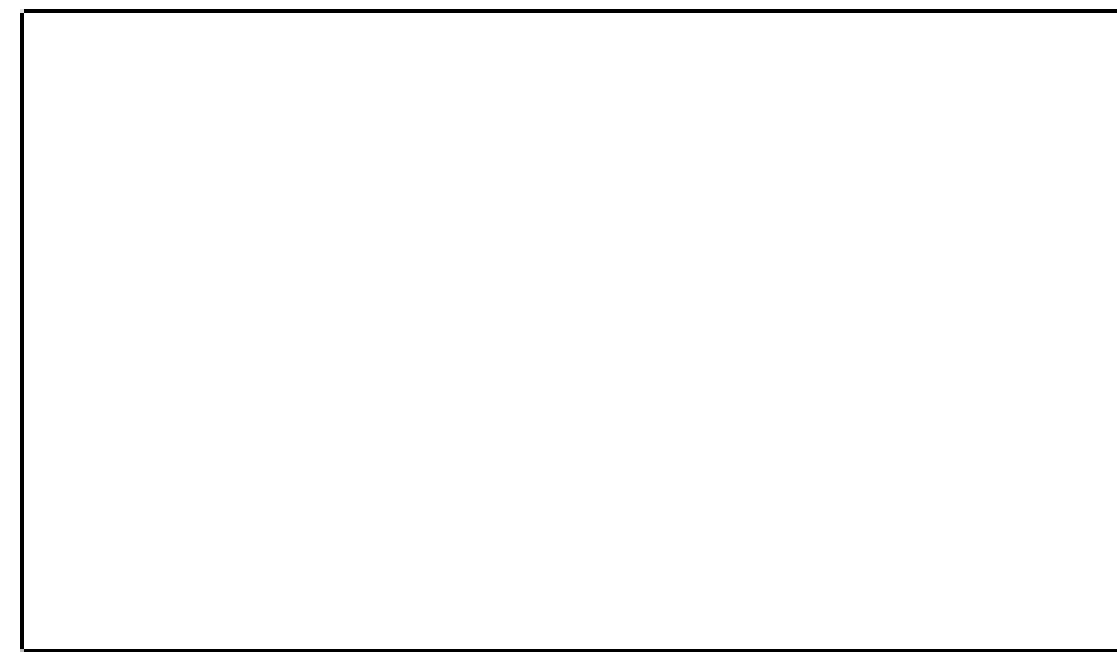
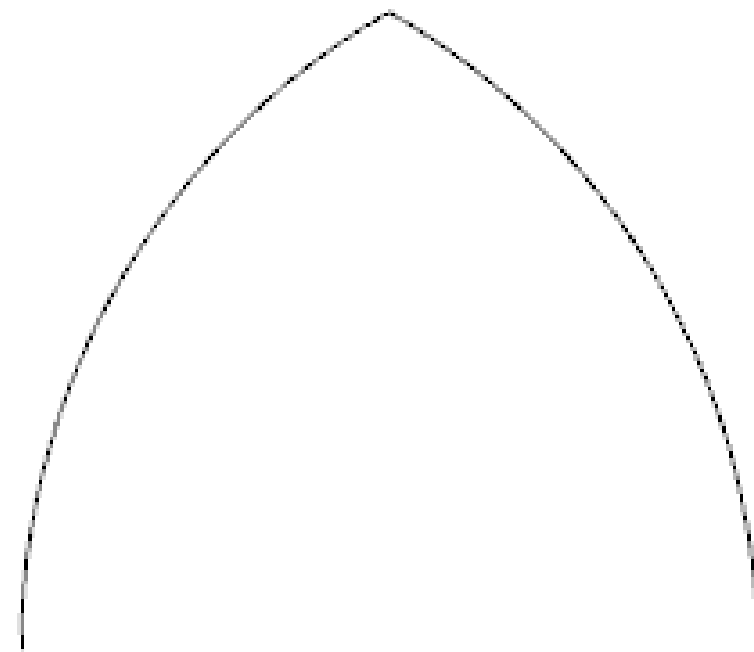
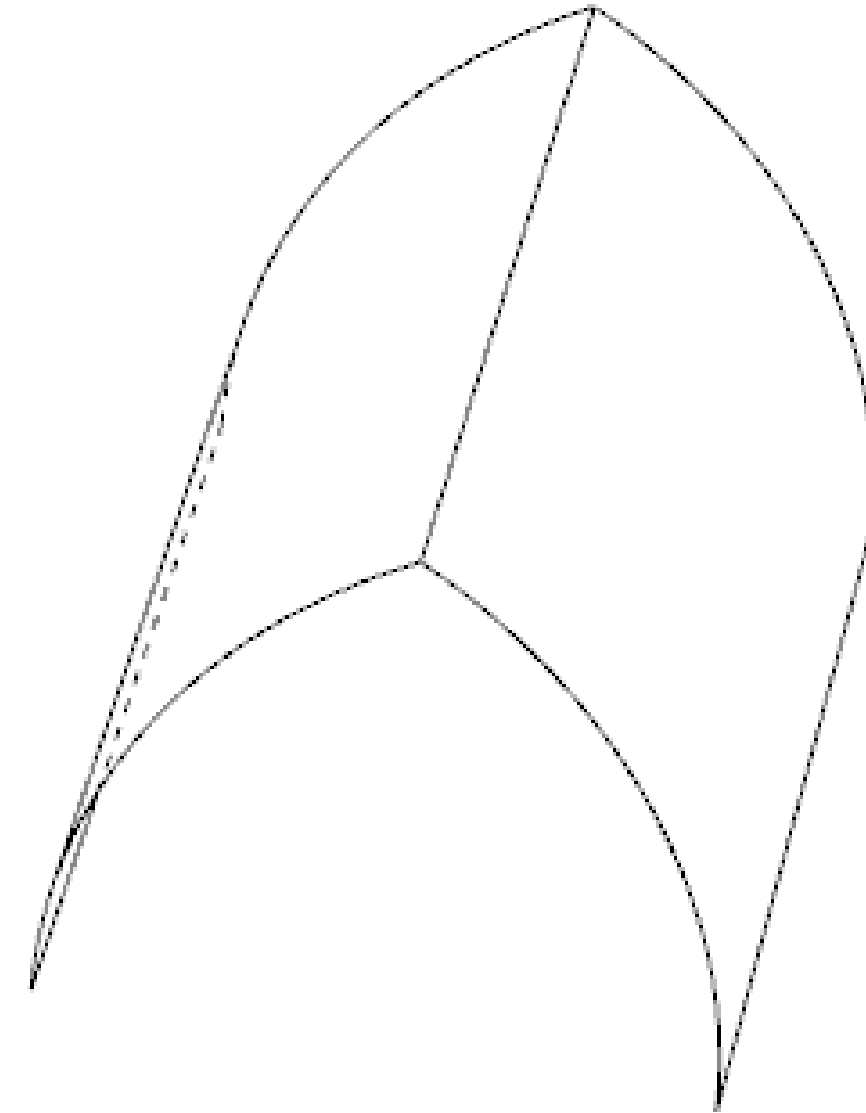
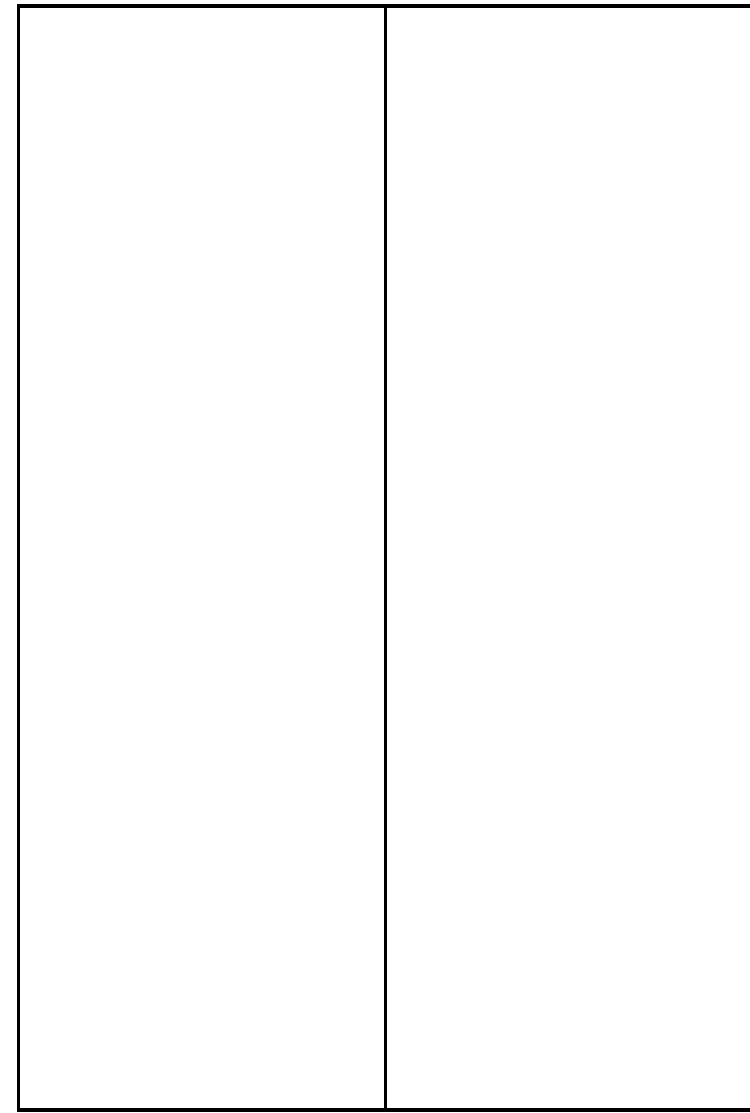


Exerc. 7.2 – Abóbada de cisterna

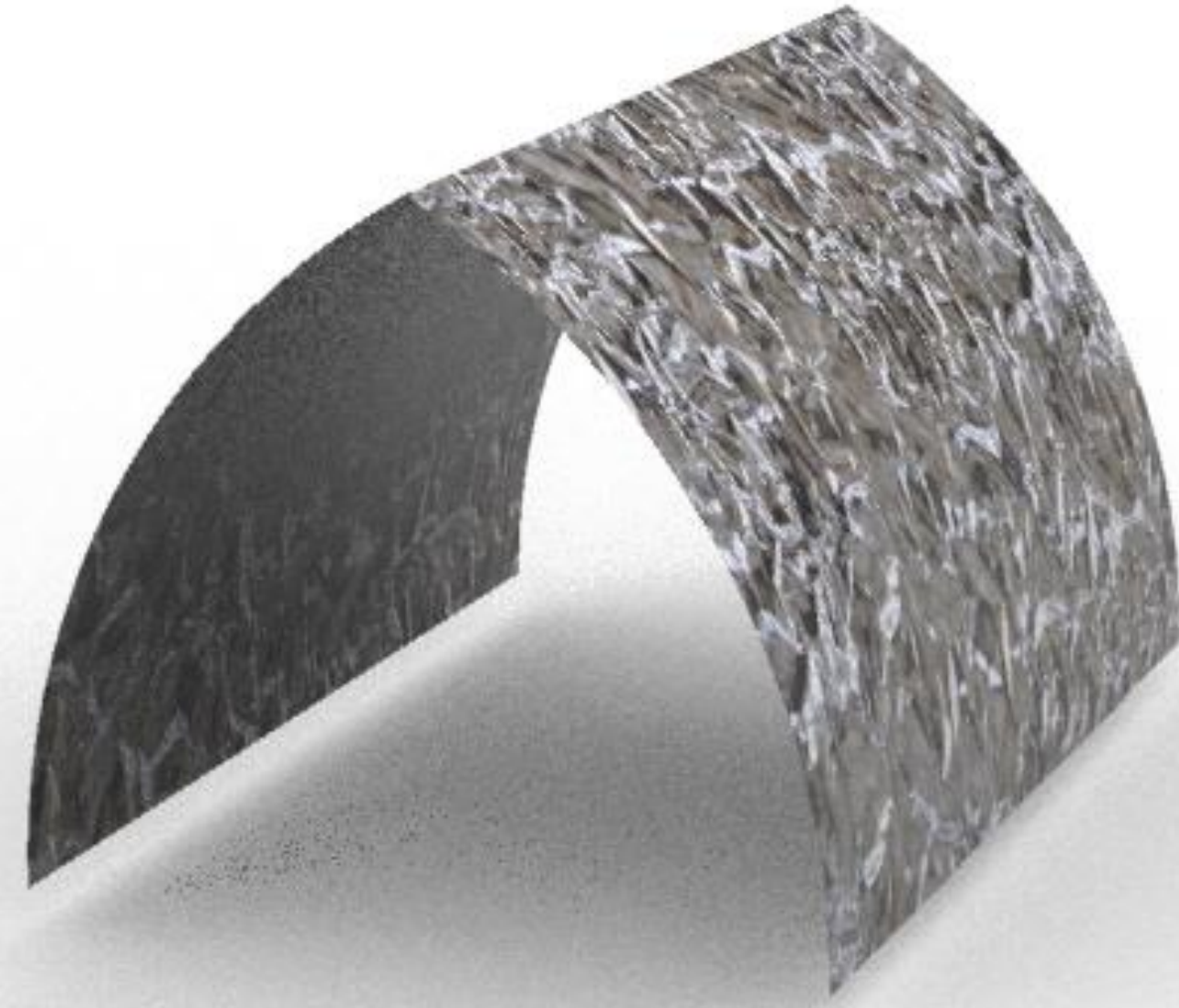




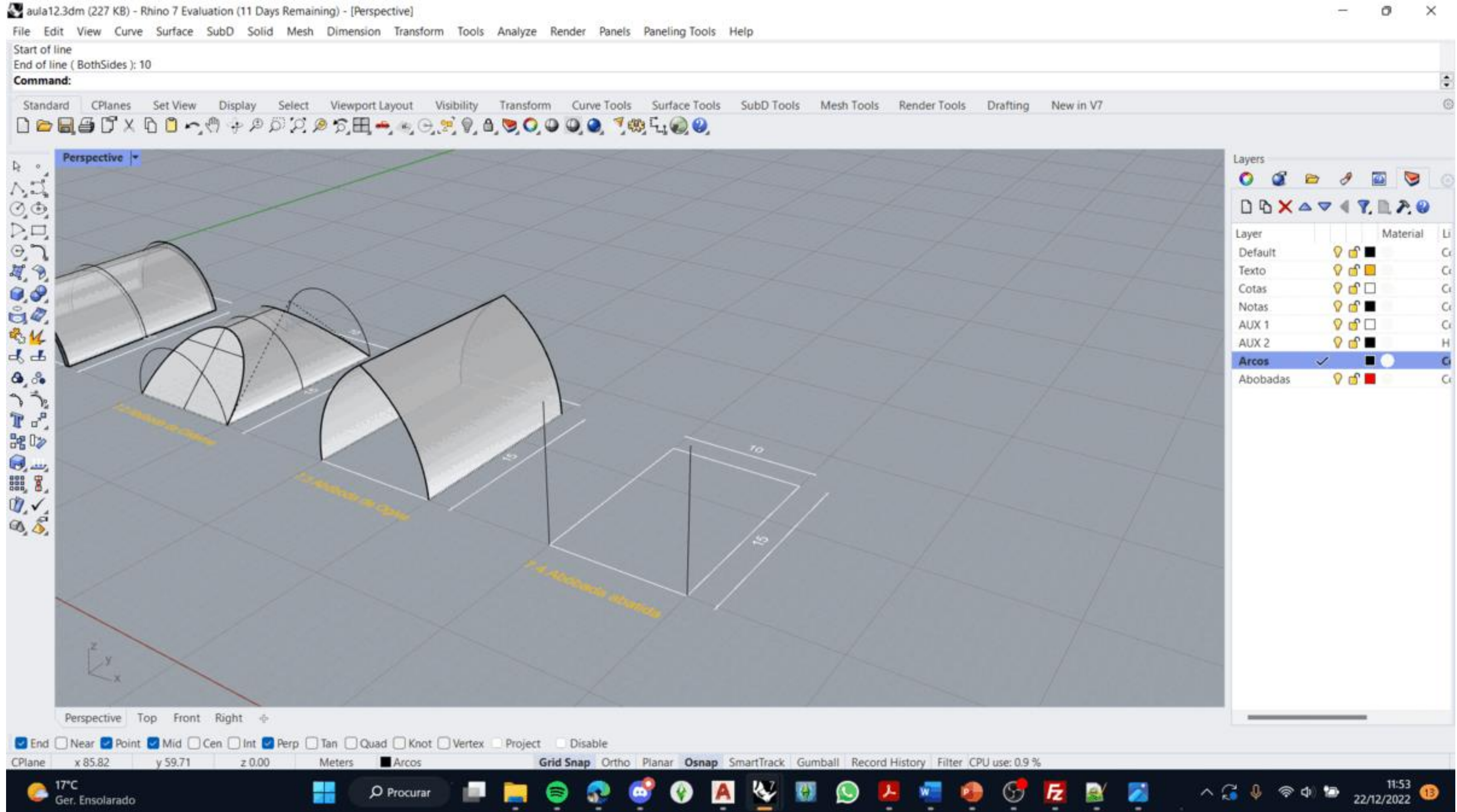
# Exerc. 7.3 – Abóbada de ogiva



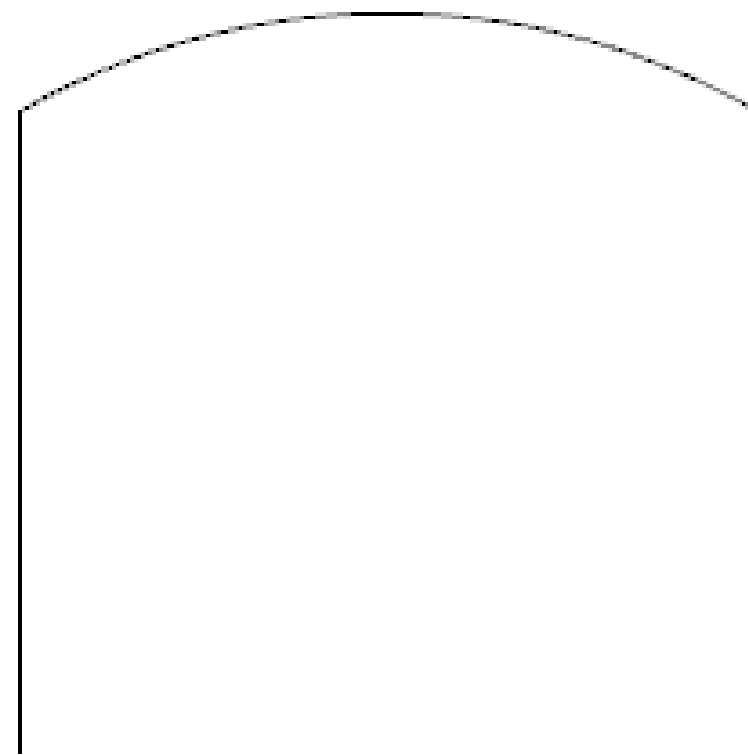
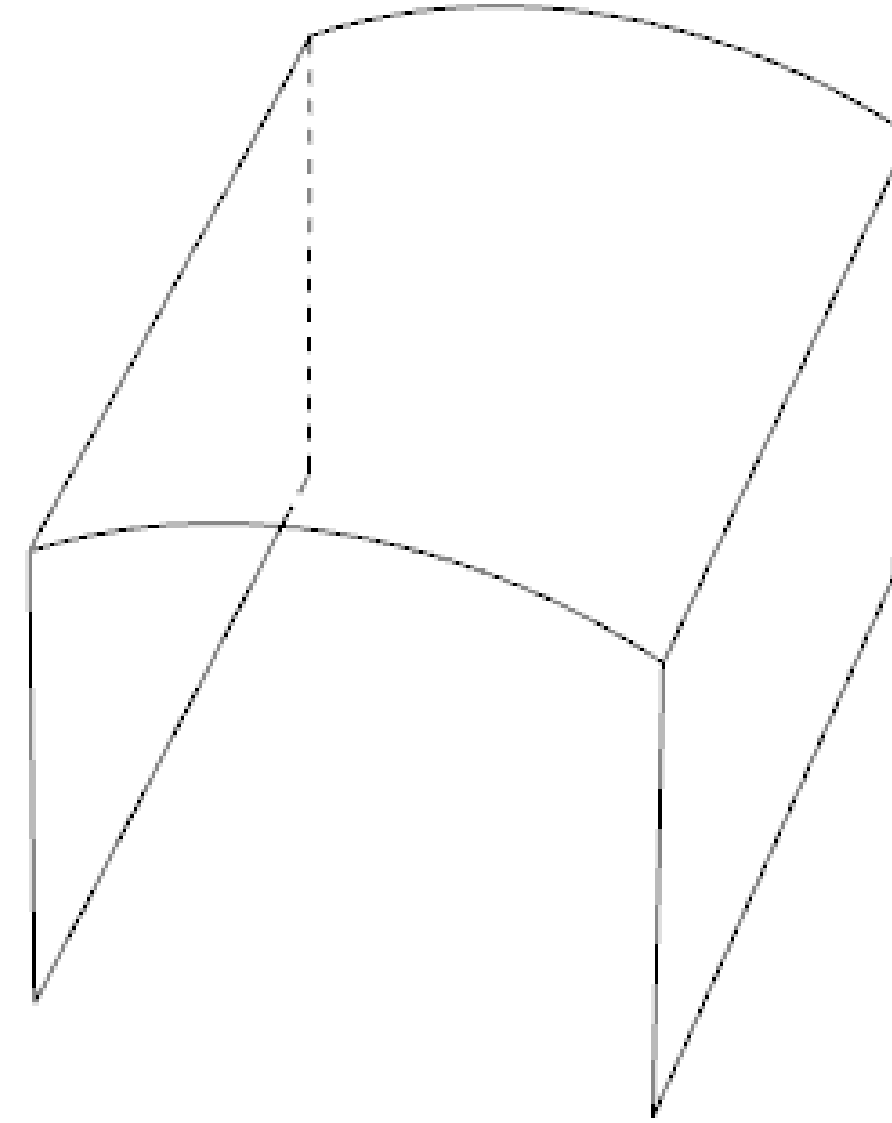
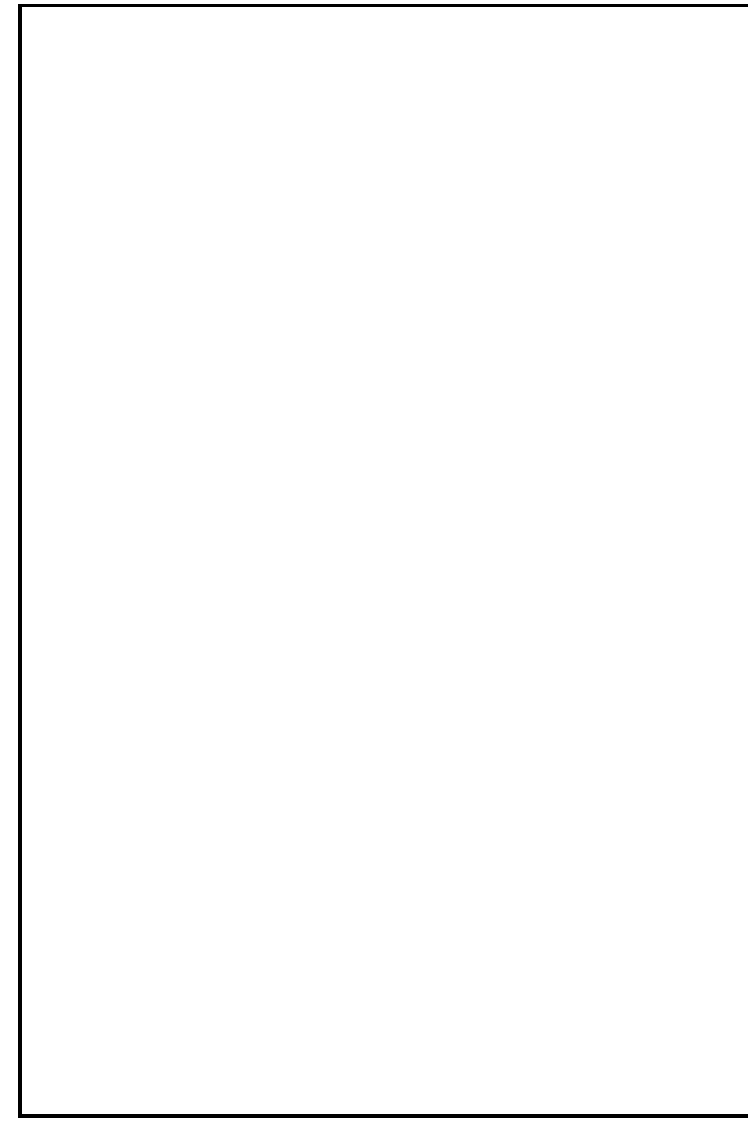
Exerc. 7.3 – Abóbada de ogiva



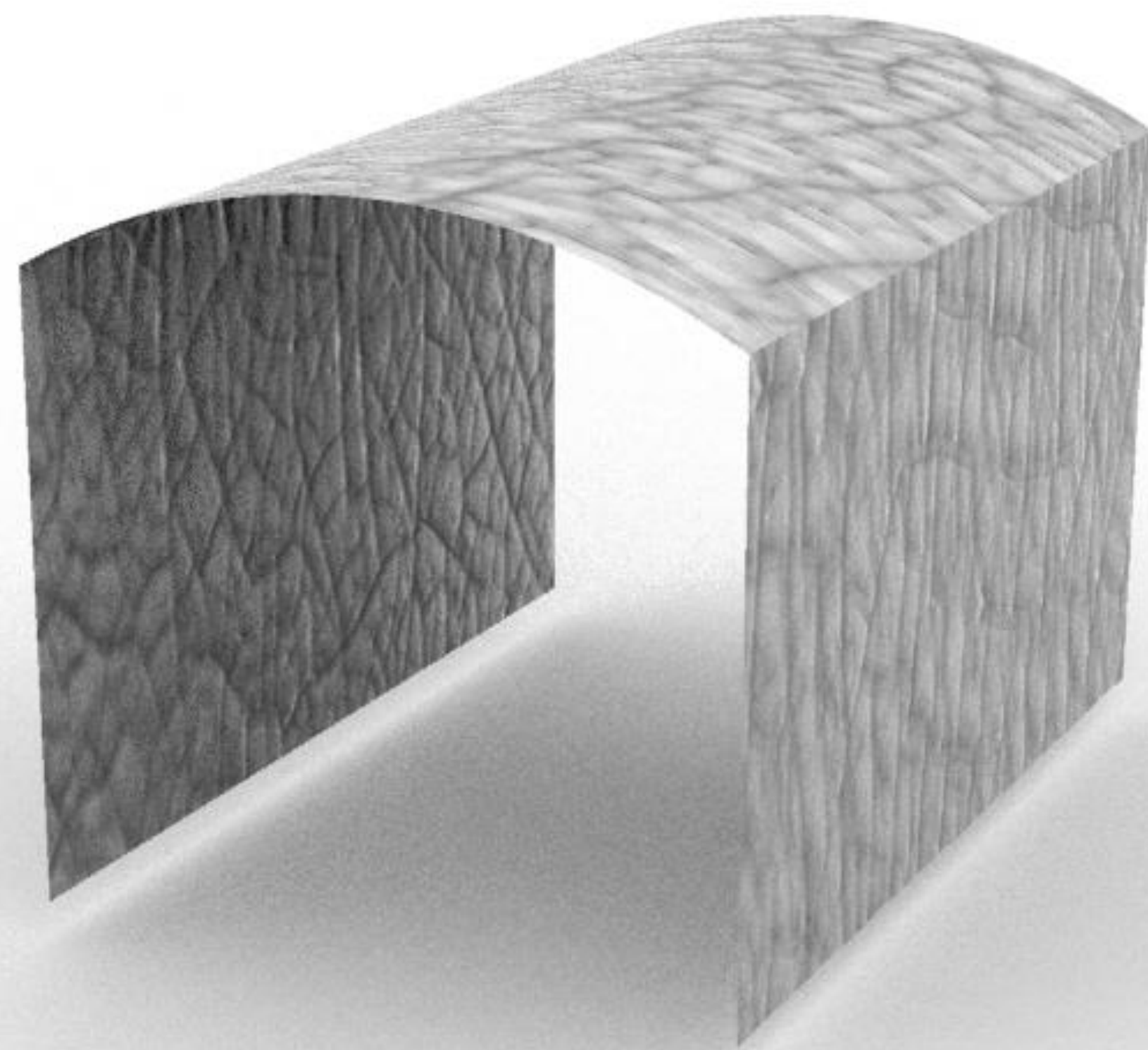
Exerc. 7.3 – Abóbada de ogiva



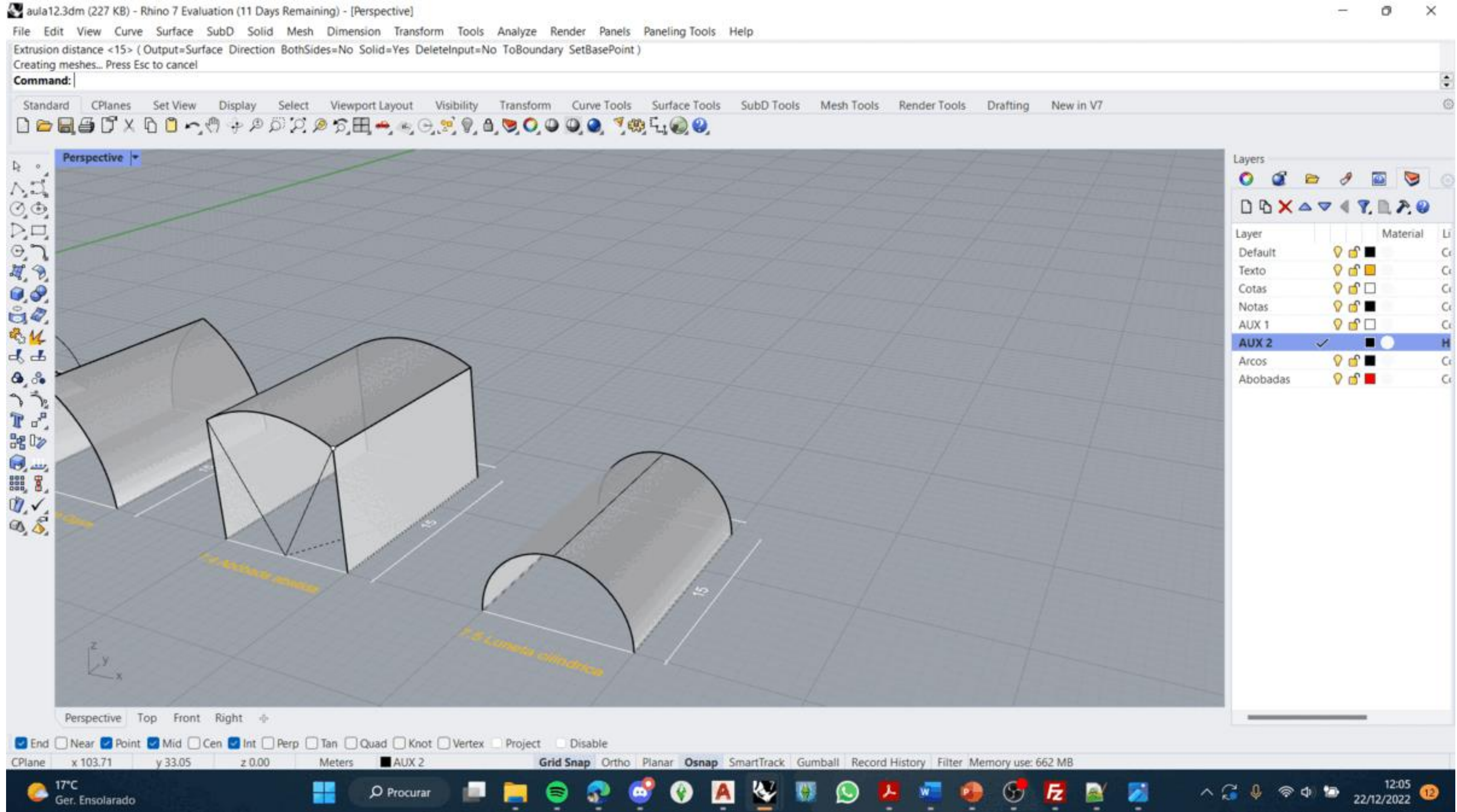
# Exerc. 7.4 – Abóbada abatida



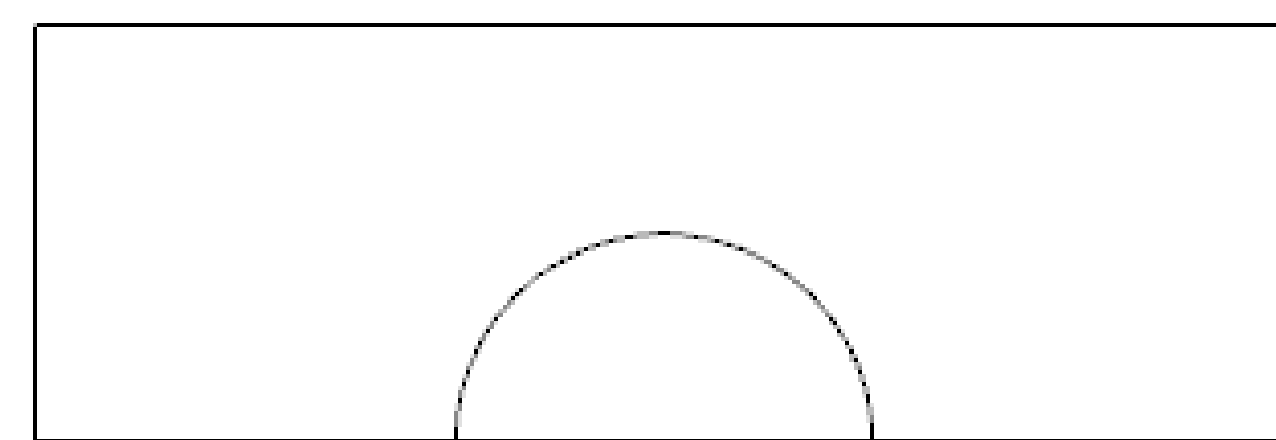
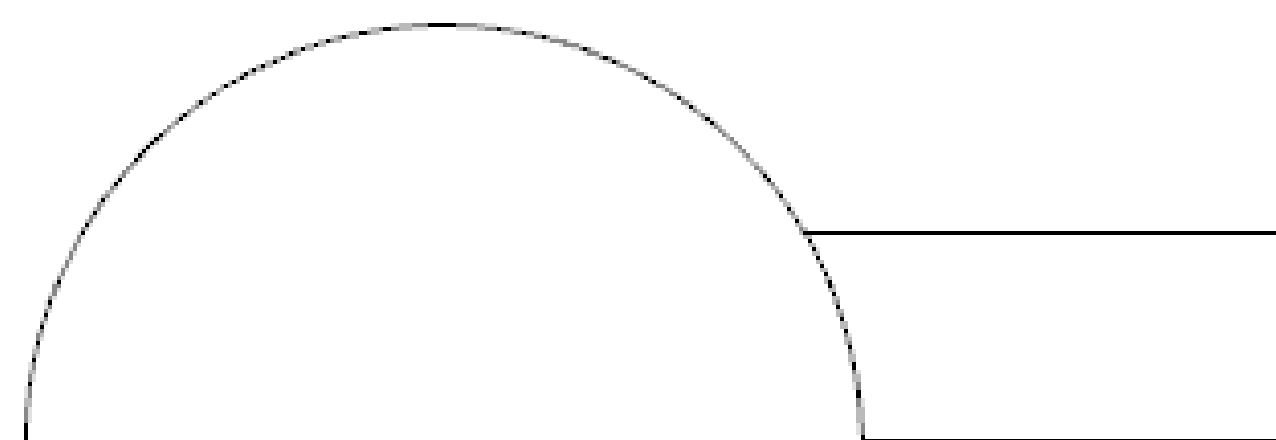
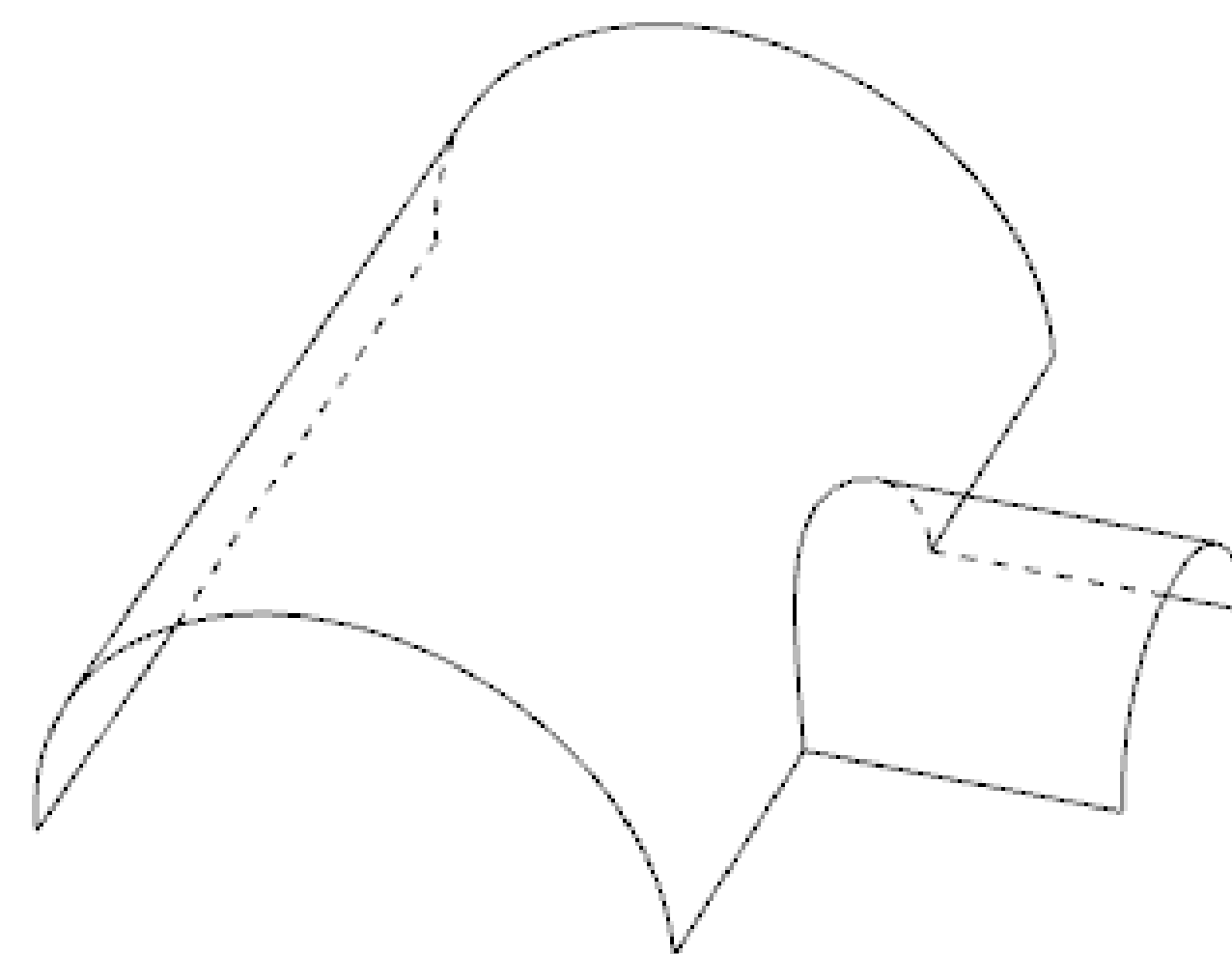
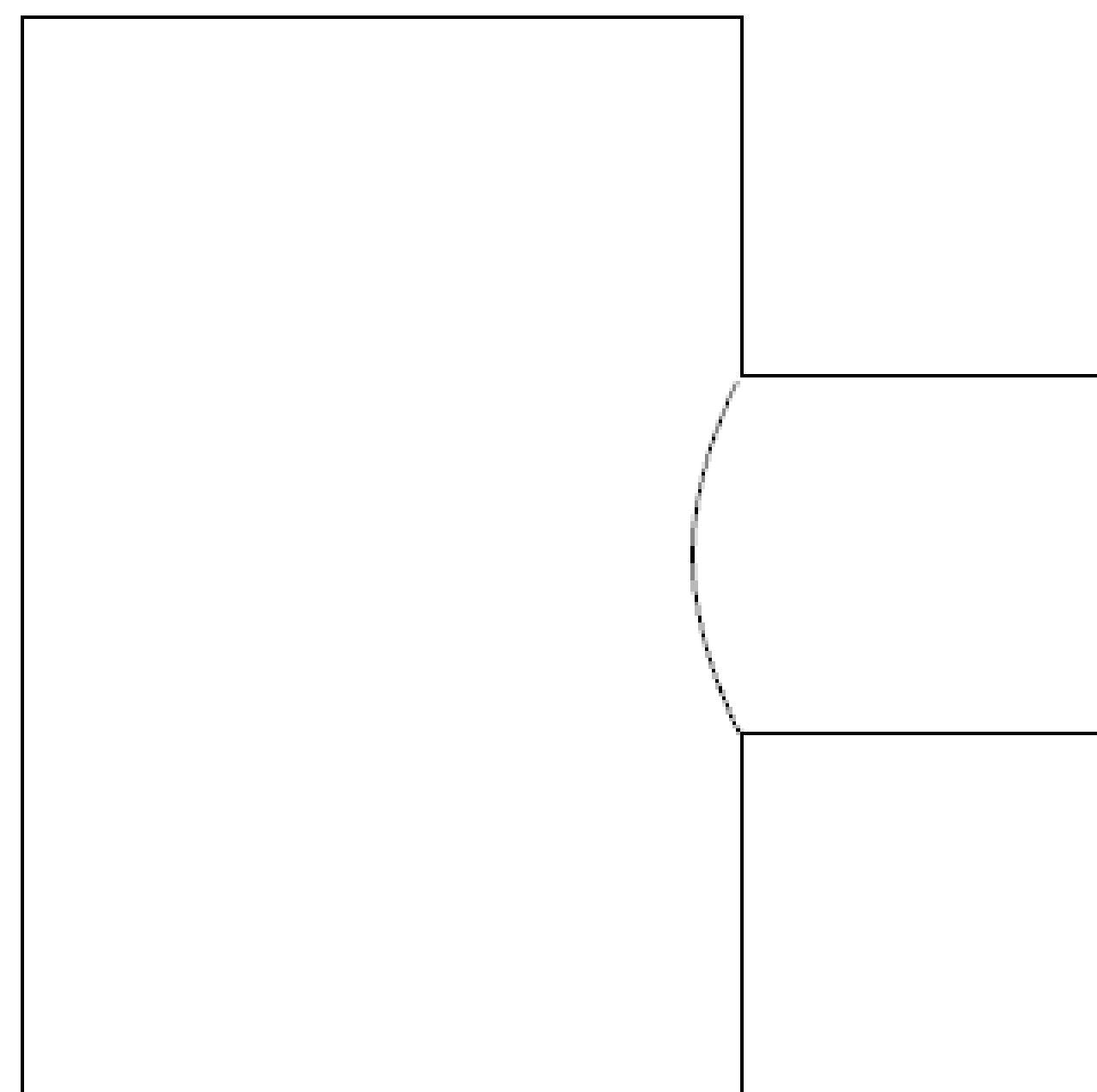
Exerc. 7.4 – Abóbada abatida



Exerc. 7.4 – Abóbada abatida



# Exerc. 7.5 – Luneta cilíndrica

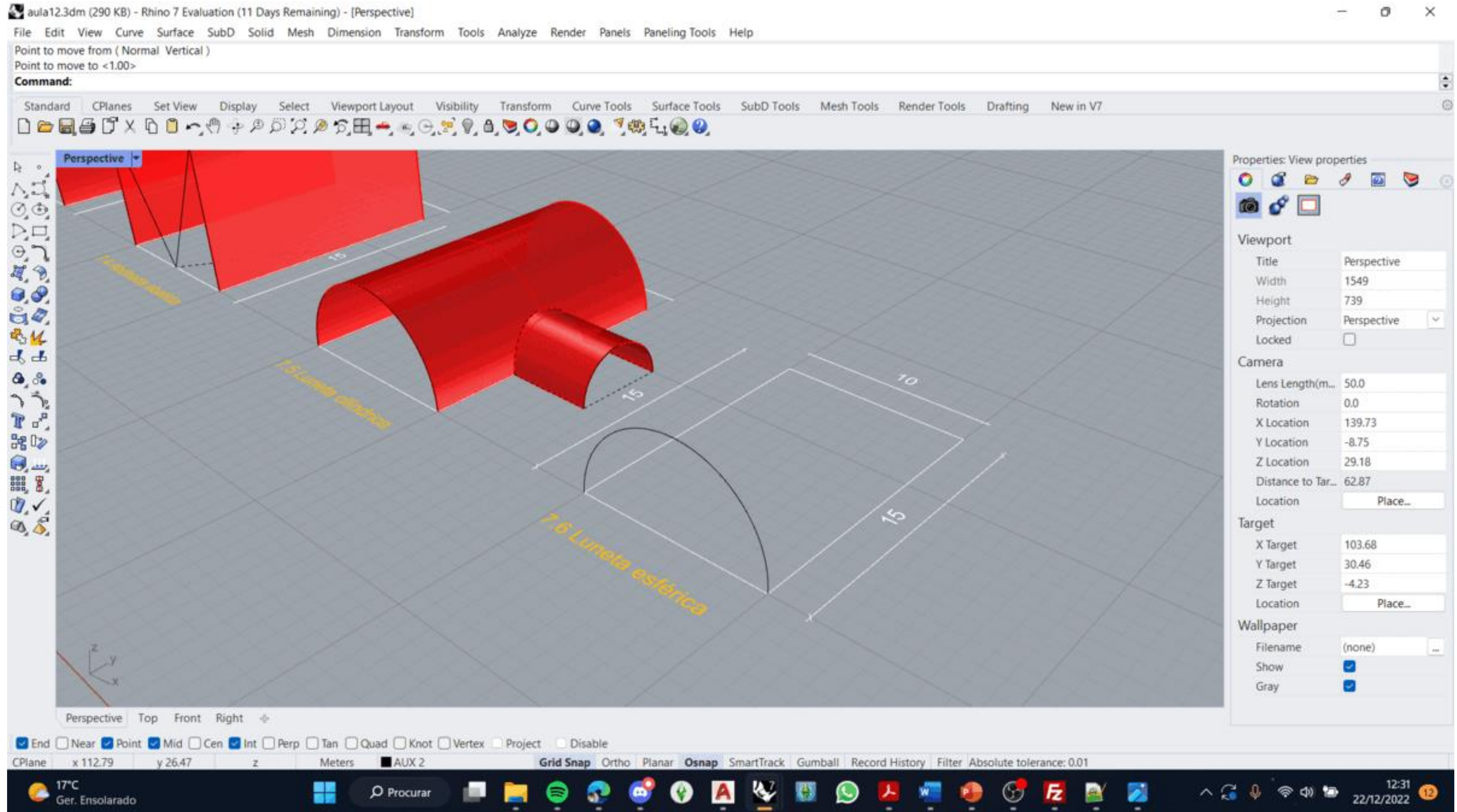


Exerc. 7.5 – Luneta cilíndrica

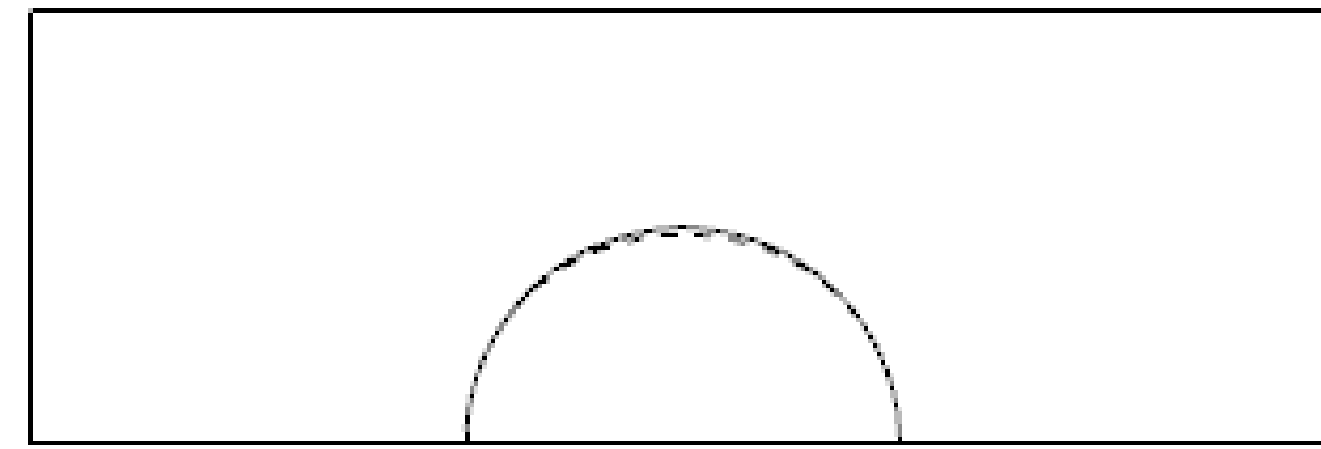
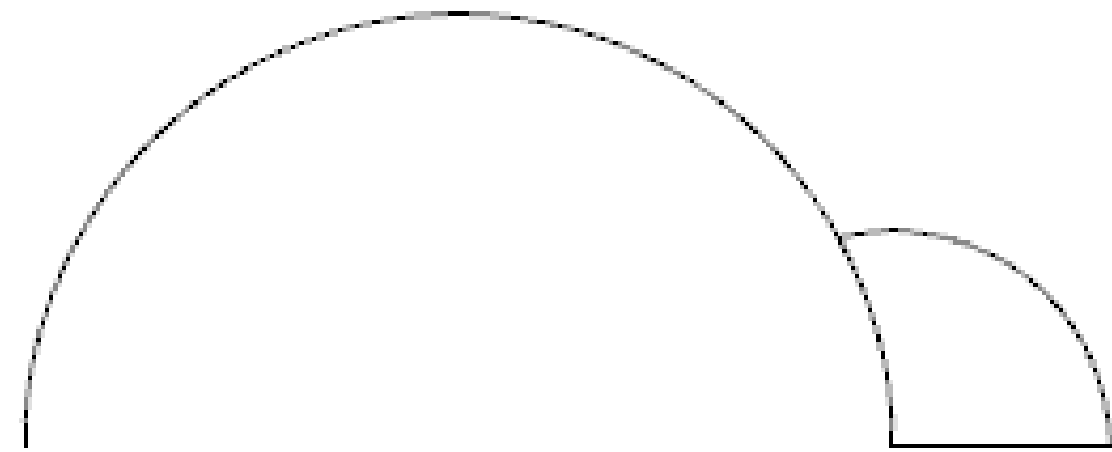
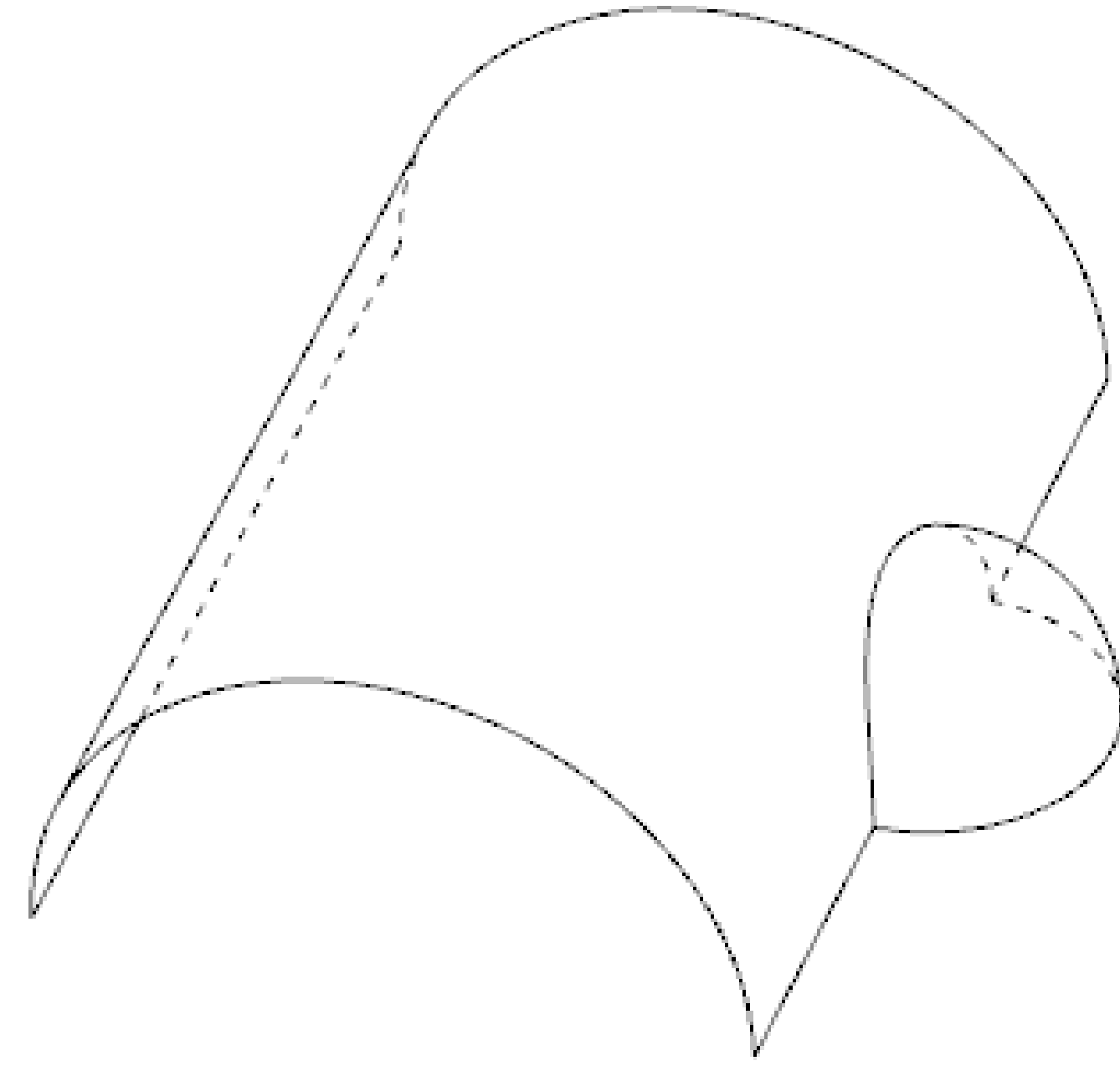
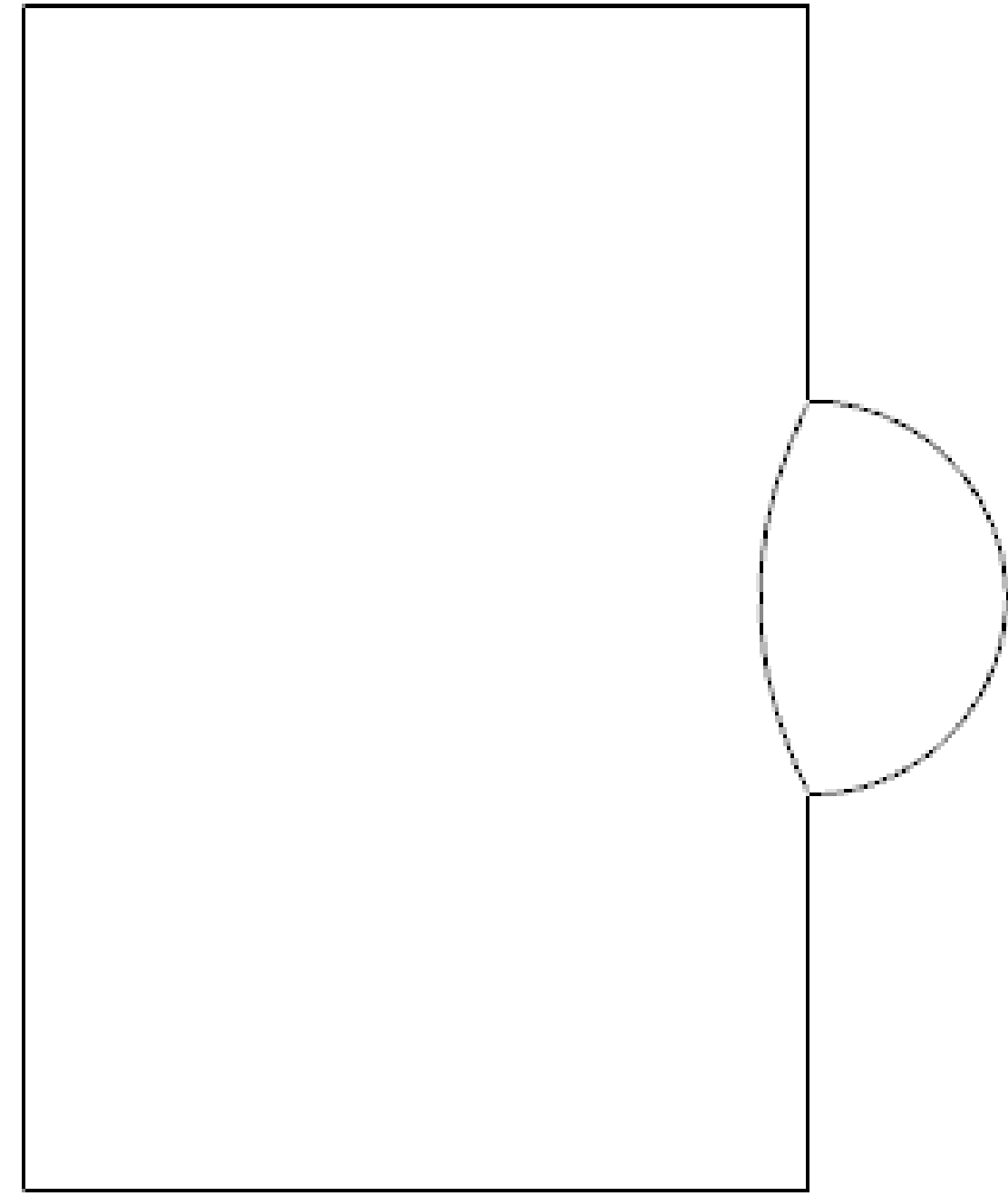




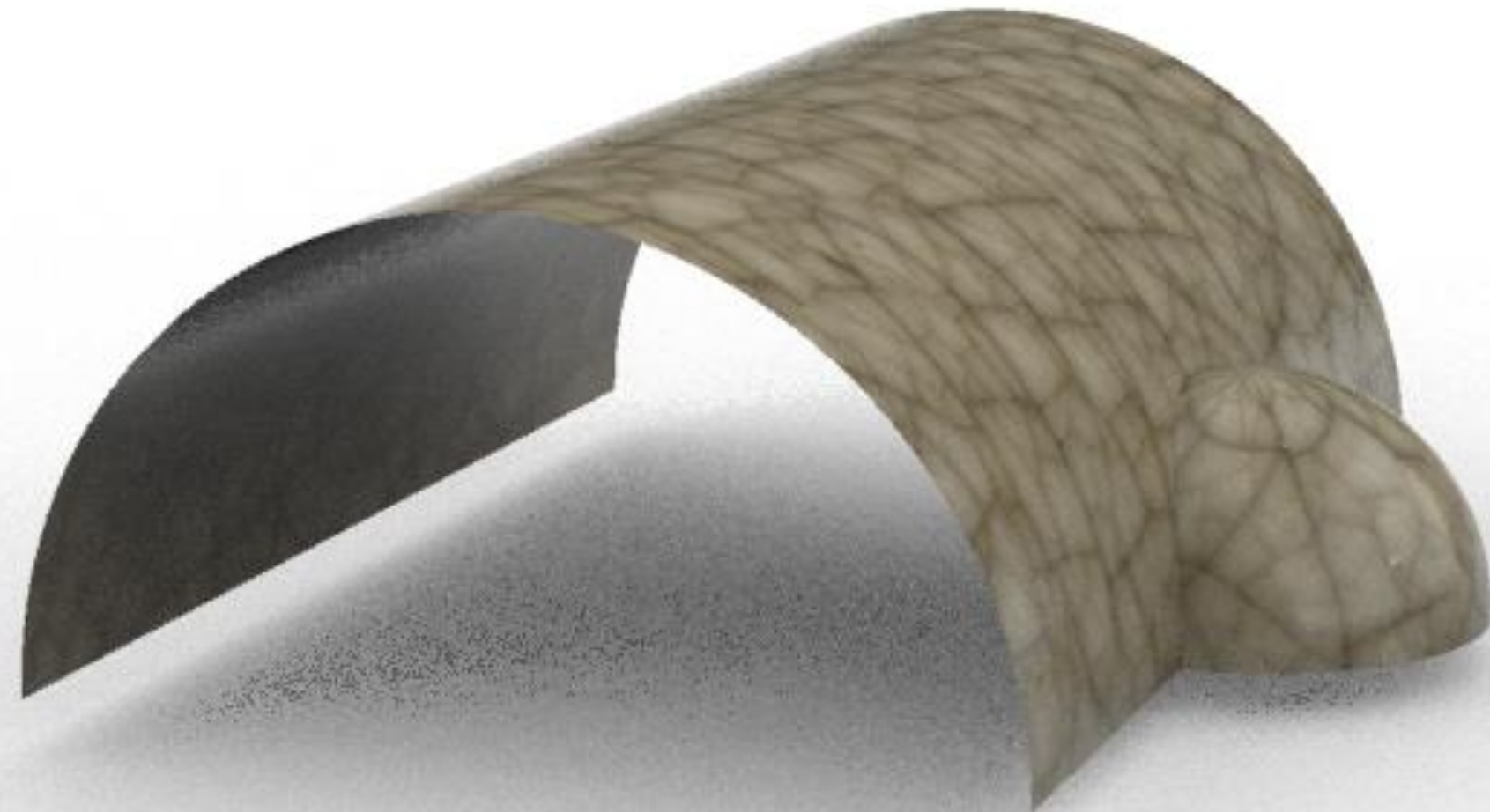
Exerc. 7.5 – Luneta cilíndrica



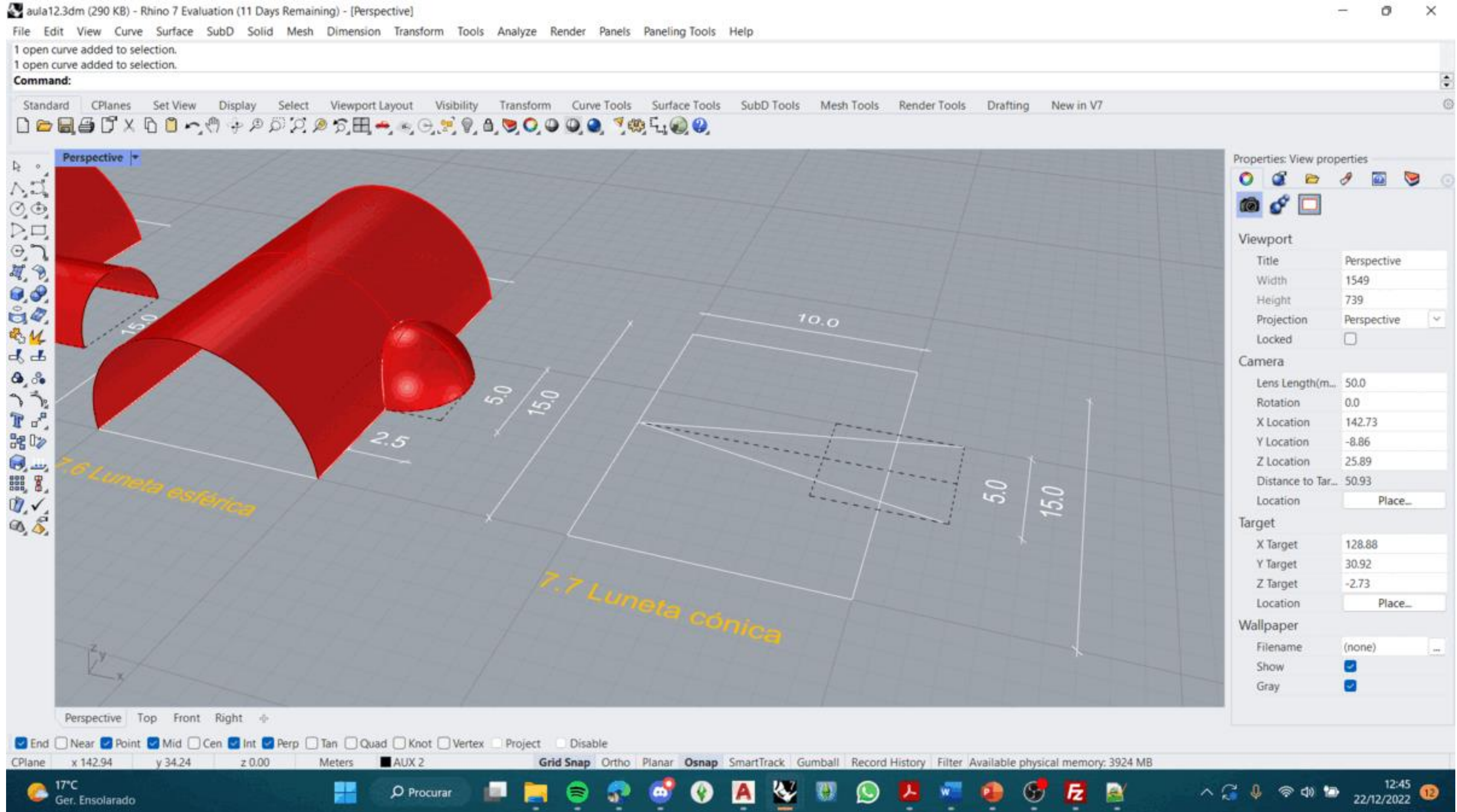
# Exerc. 7.6 – Luneta esférica



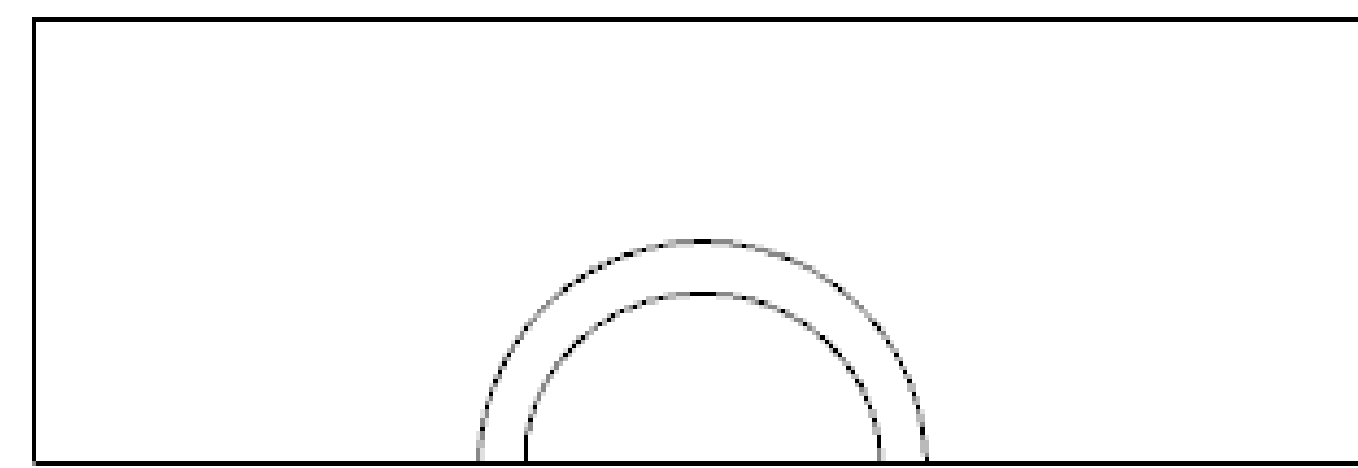
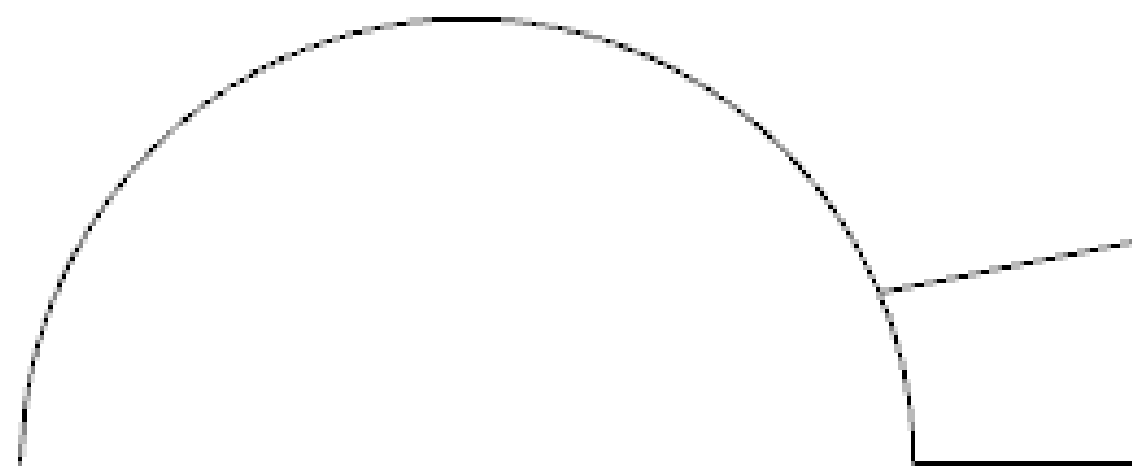
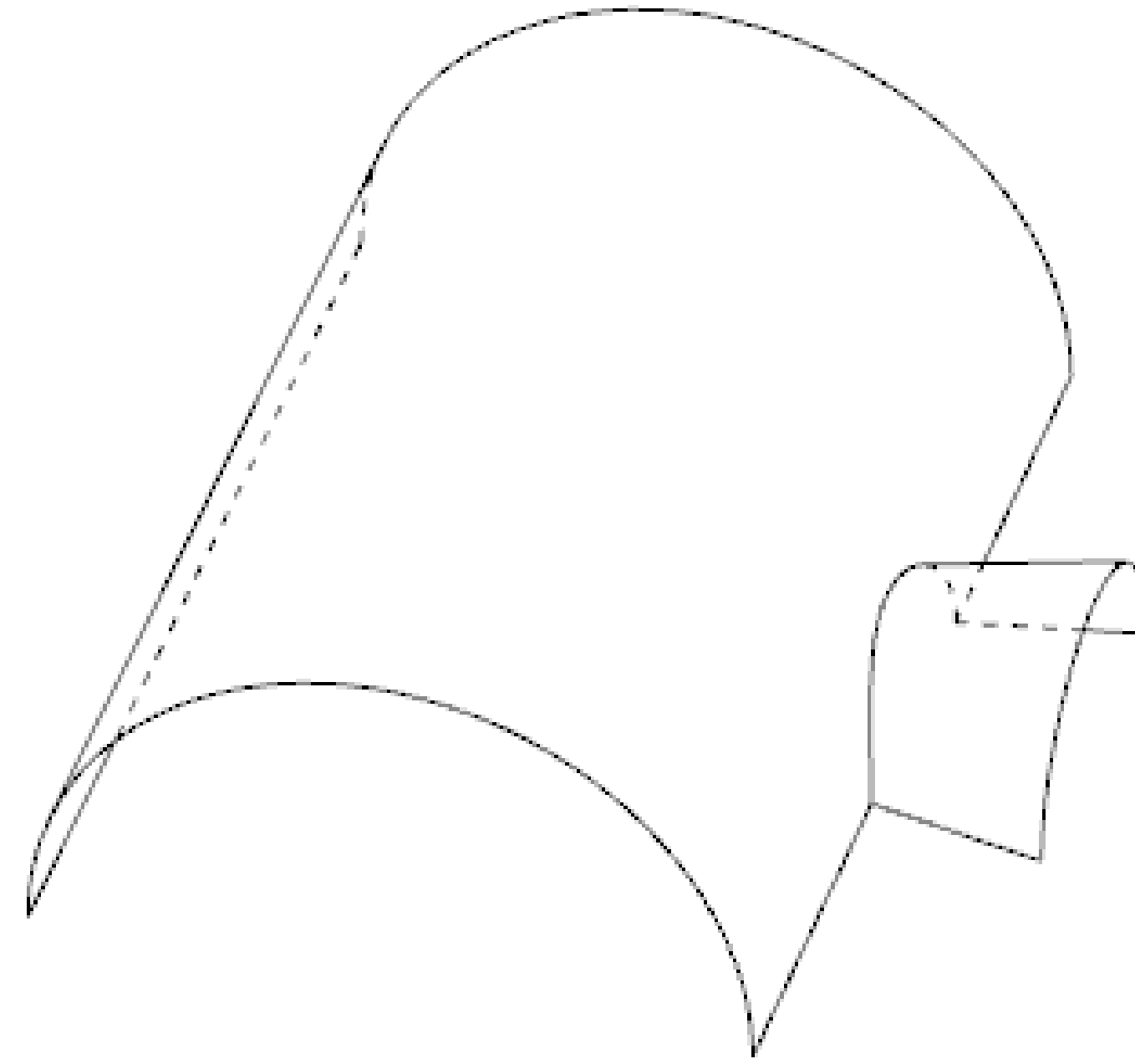
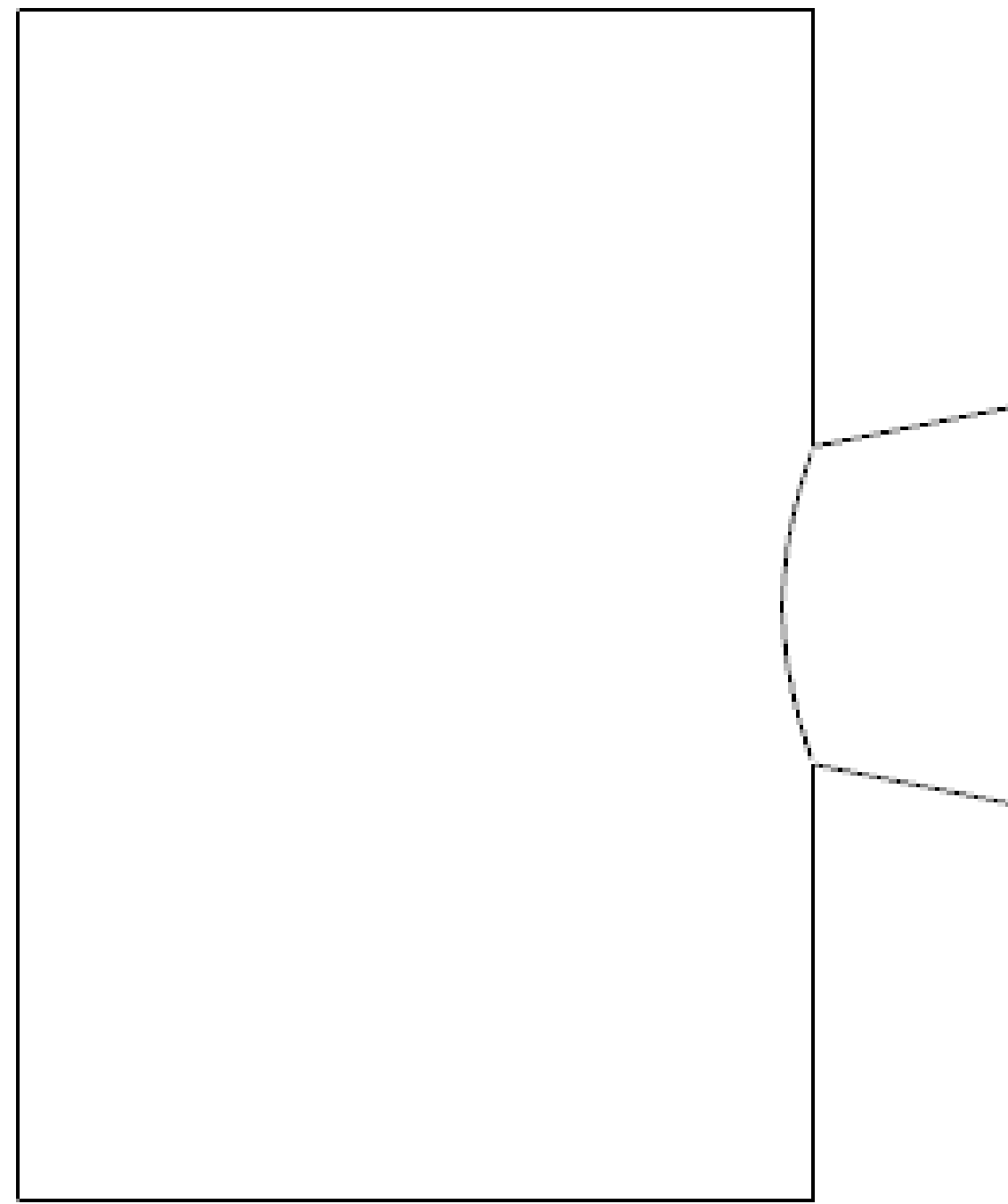
Exerc. 7.6 – Luneta esférica



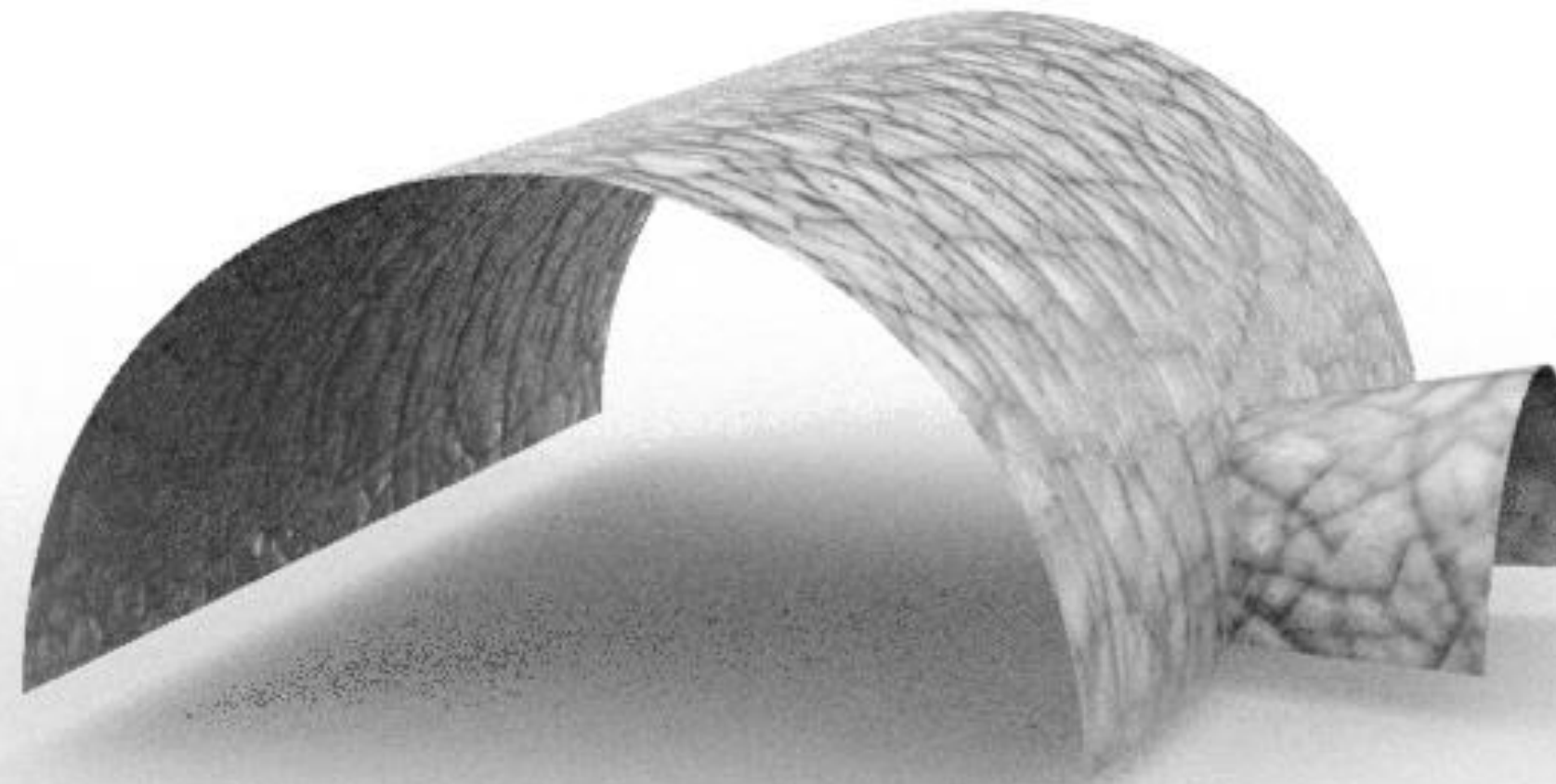
Exerc. 7.6 – Luneta esférica



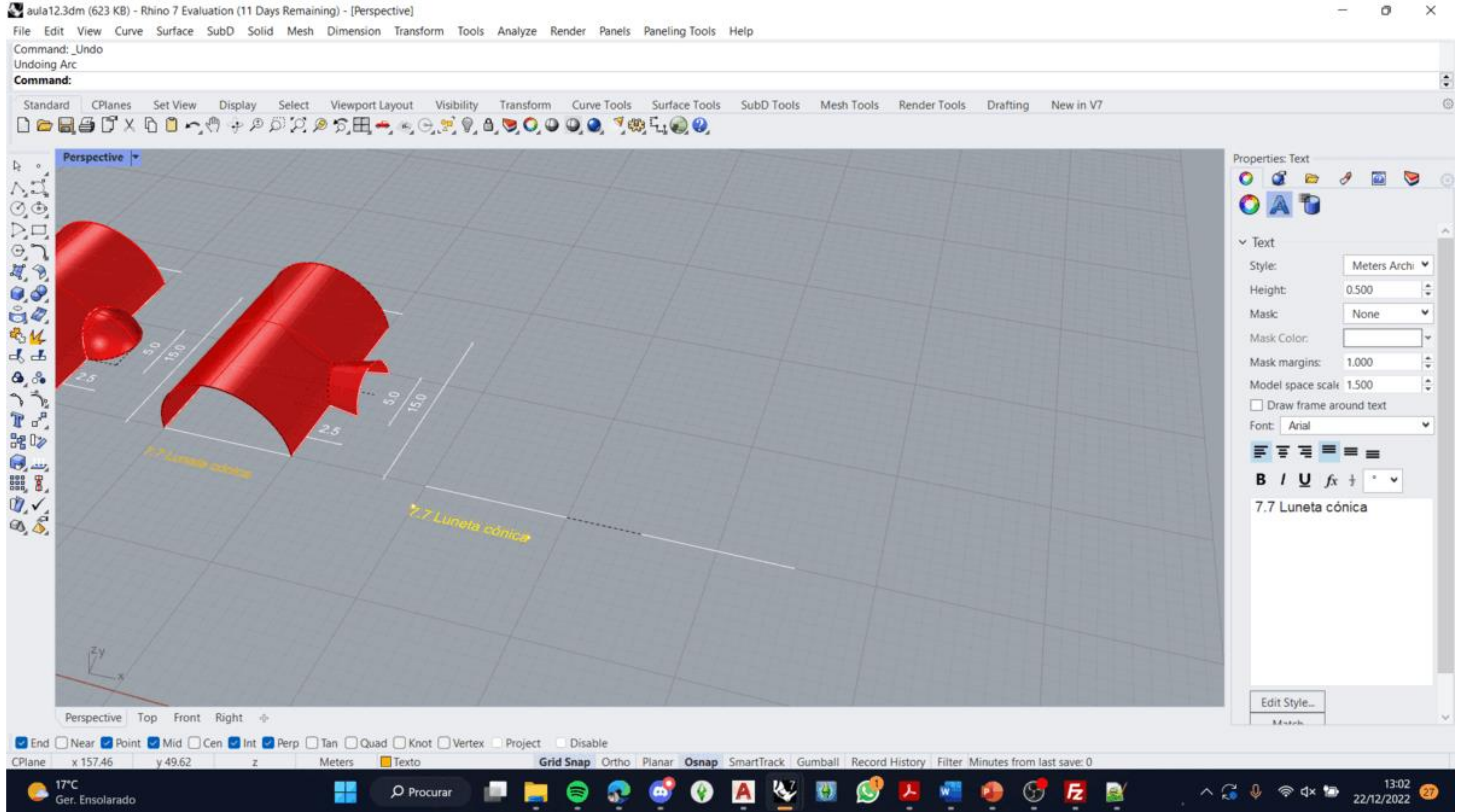
# Exerc. 7.7 – Luneta cónica



Exerc. 7.7 – Luneta cónica

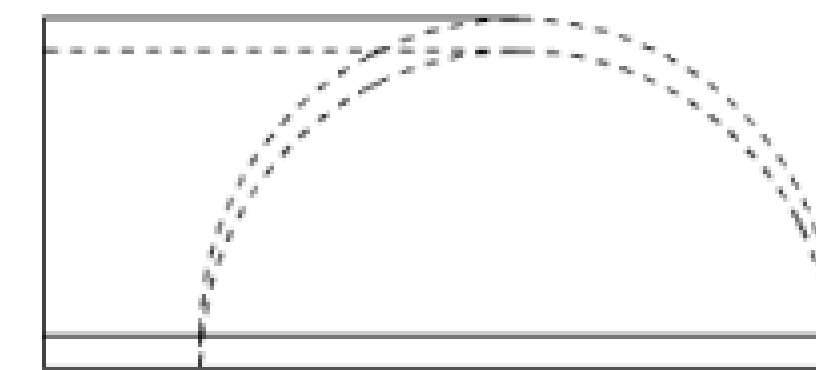
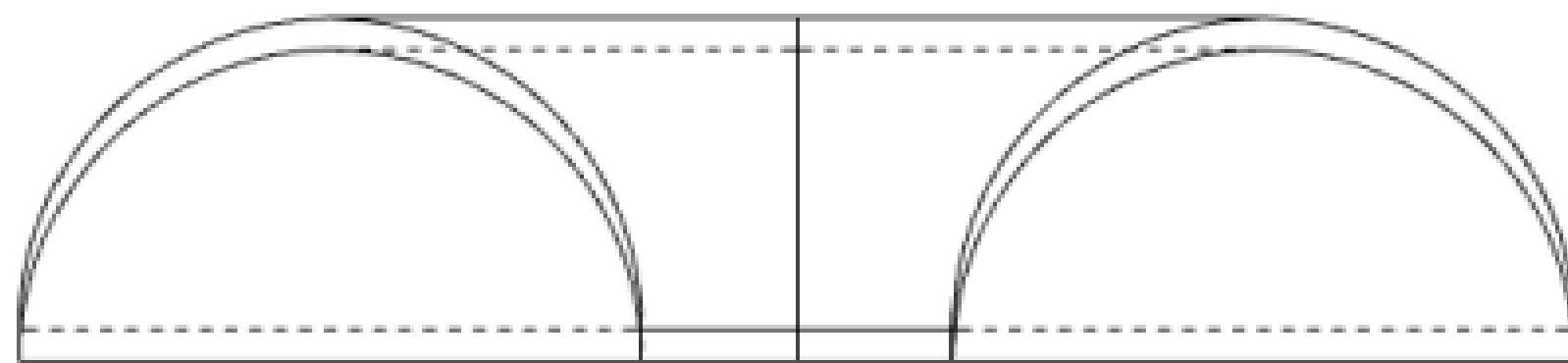
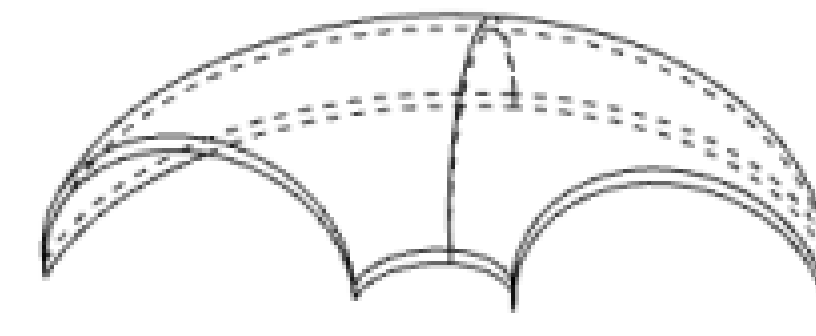
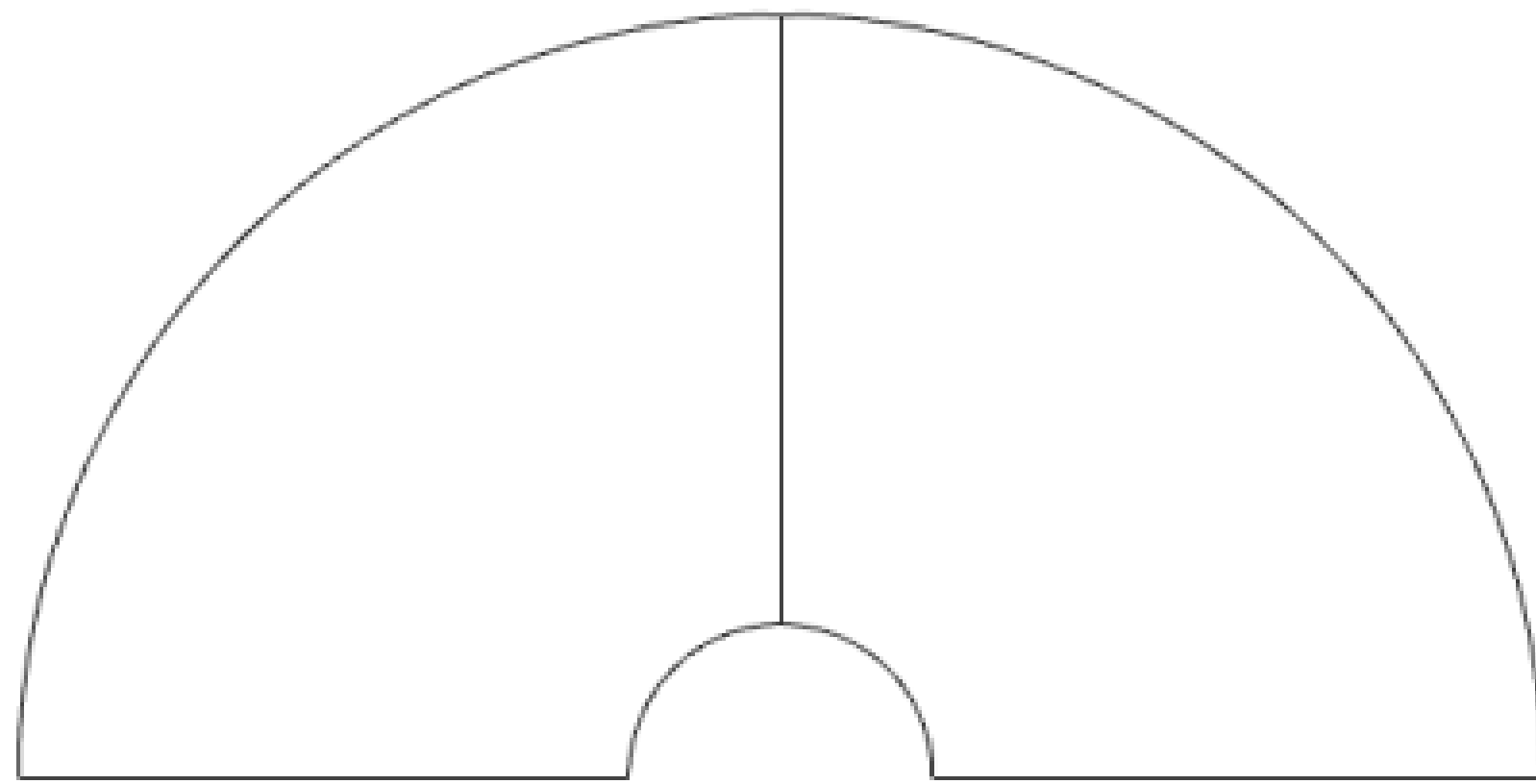


Exerc. 7.7 – Luneta cónica

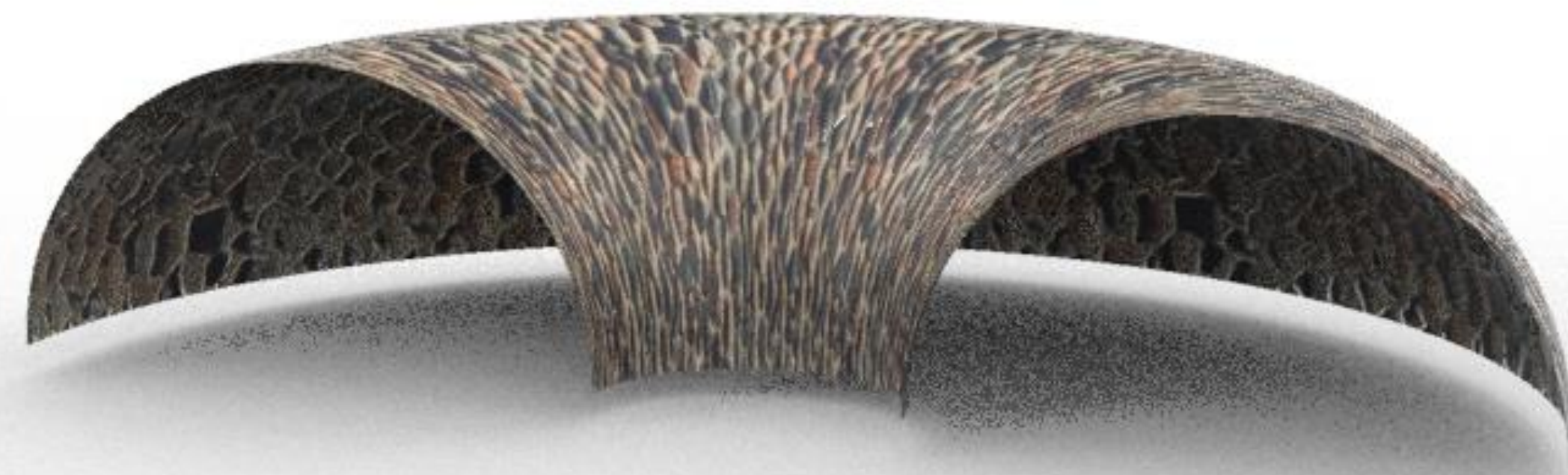


# Exerc. 7.8 – Abóbada tural

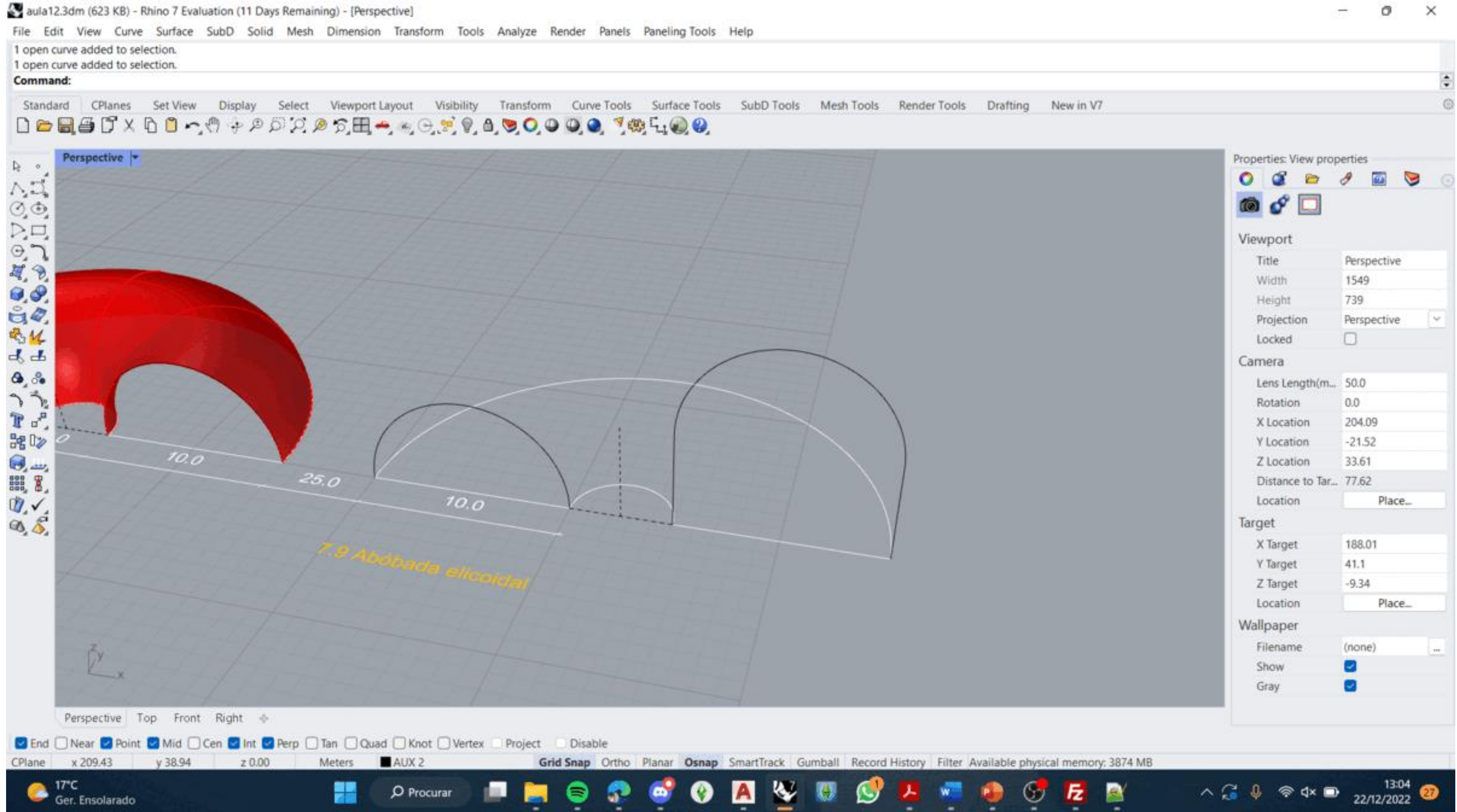




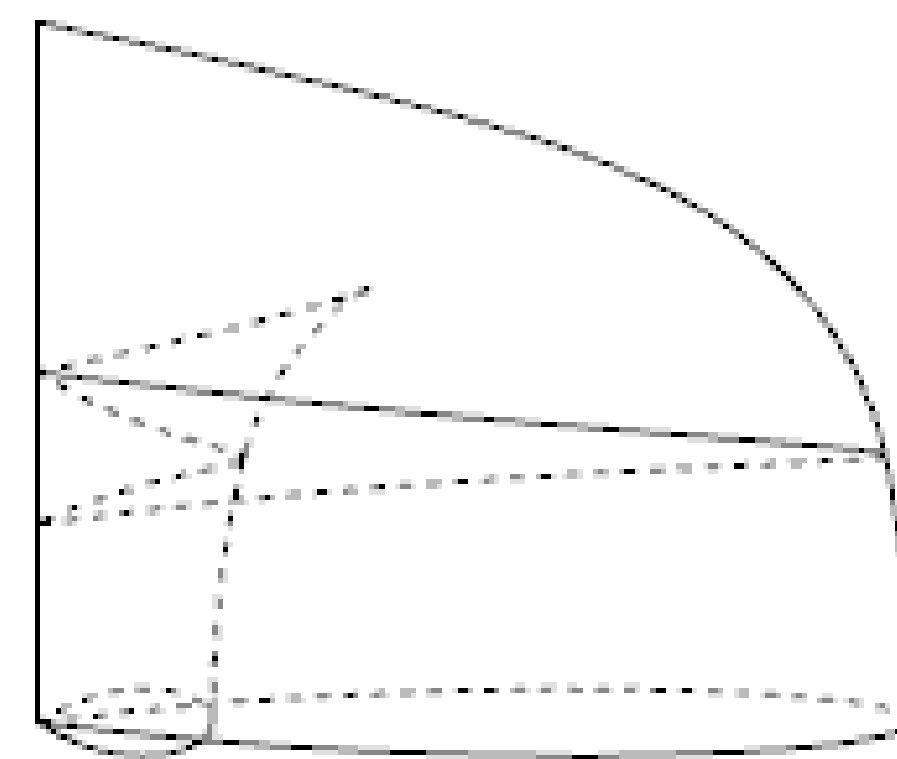
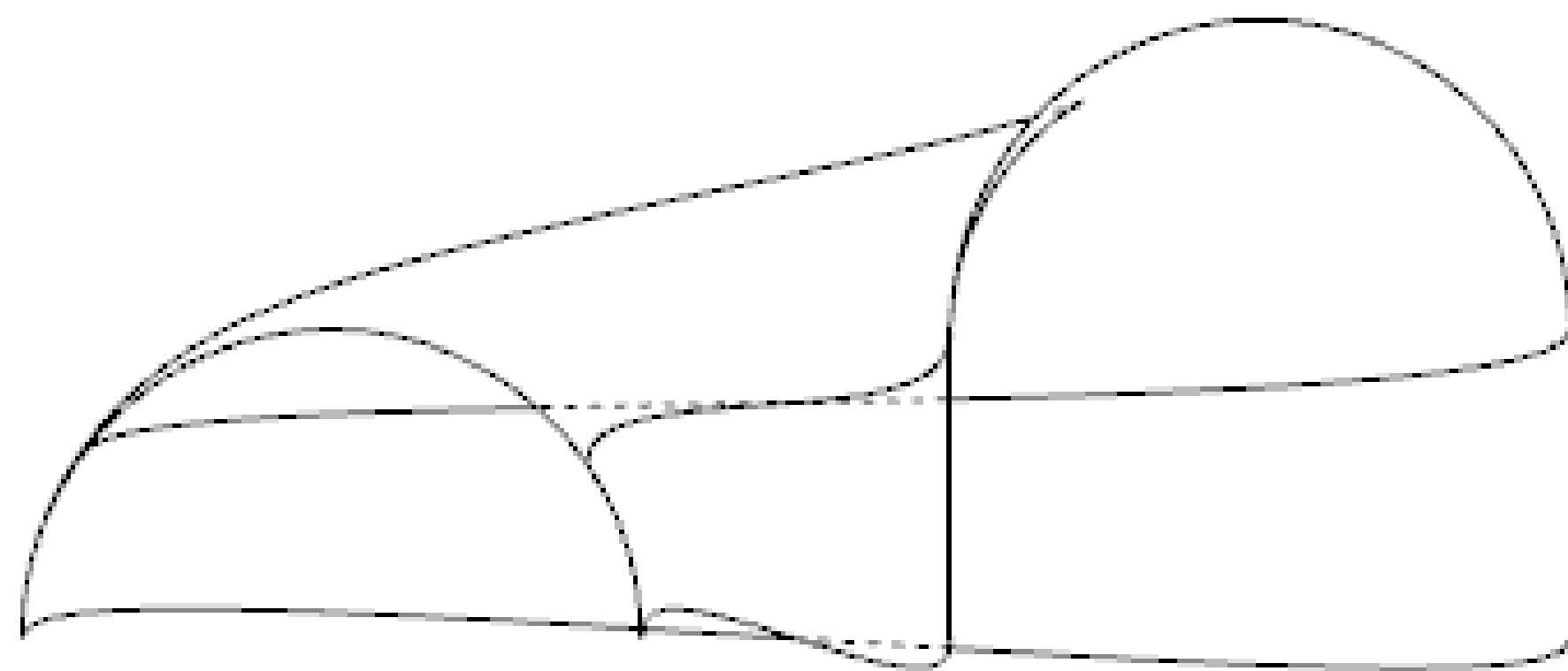
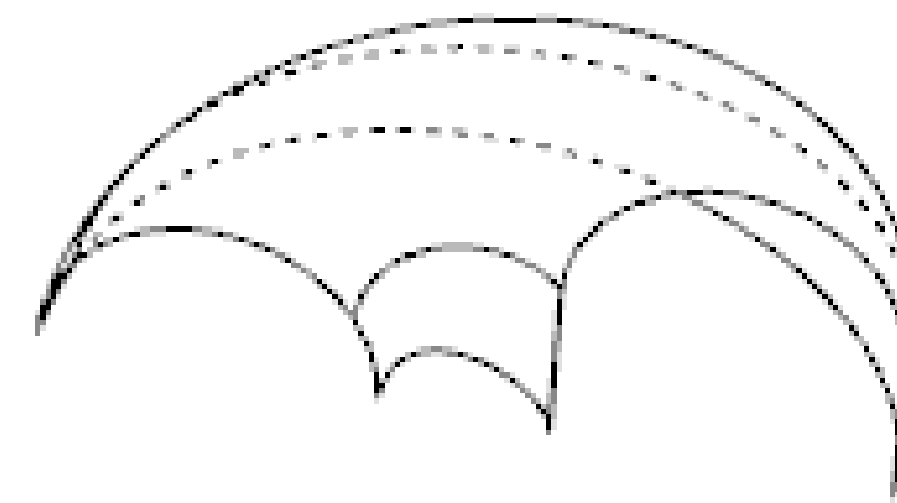
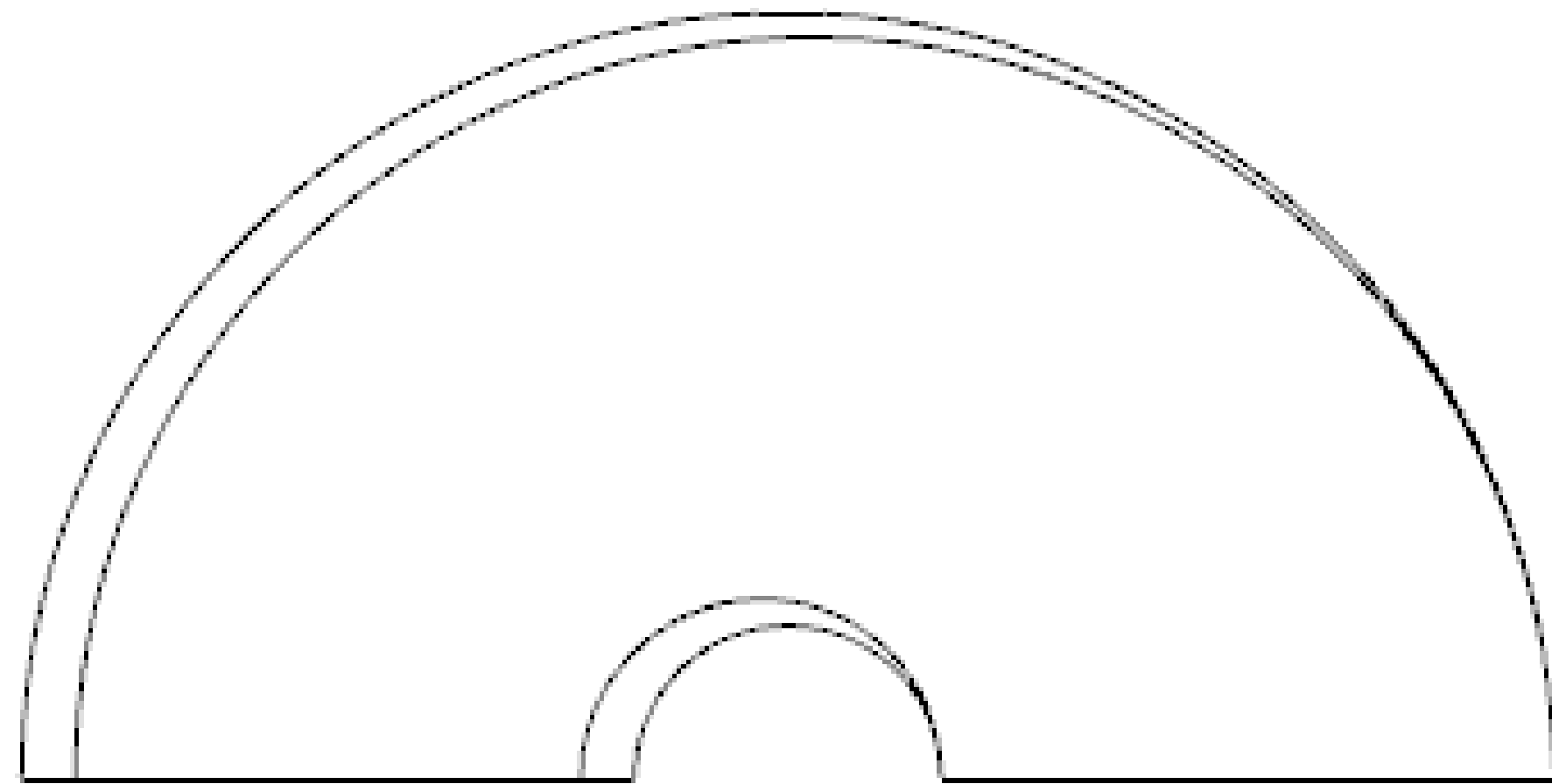
Exerc. 7.8 – Abóbada tural



Exerc. 7.8 – Abóbada tural



# Exerc. 7.9 – Abóbada helicoidal



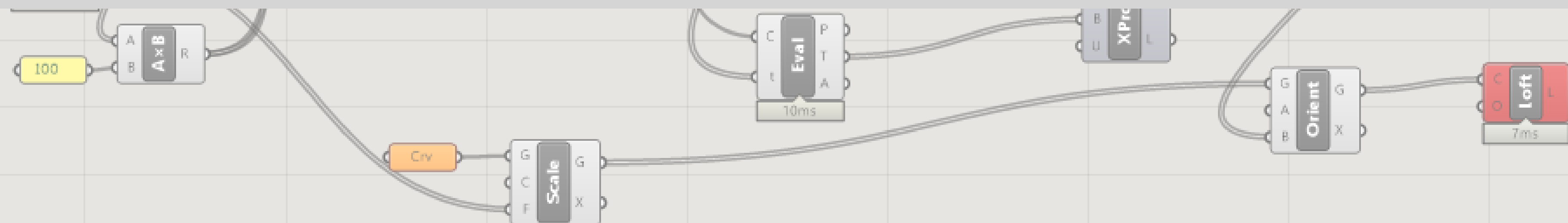
Exerc. 7.9 – Abóbada helicoidal

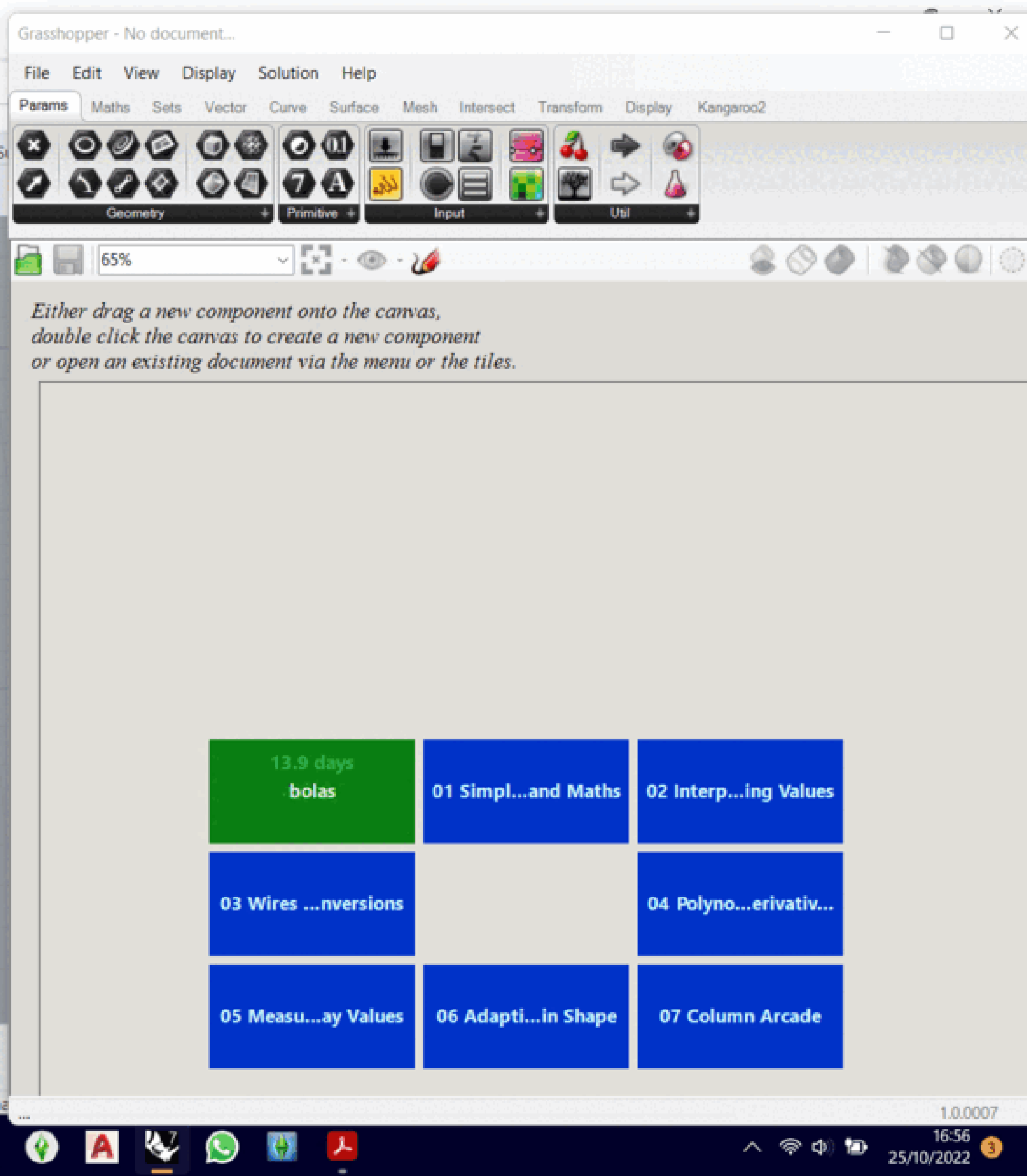
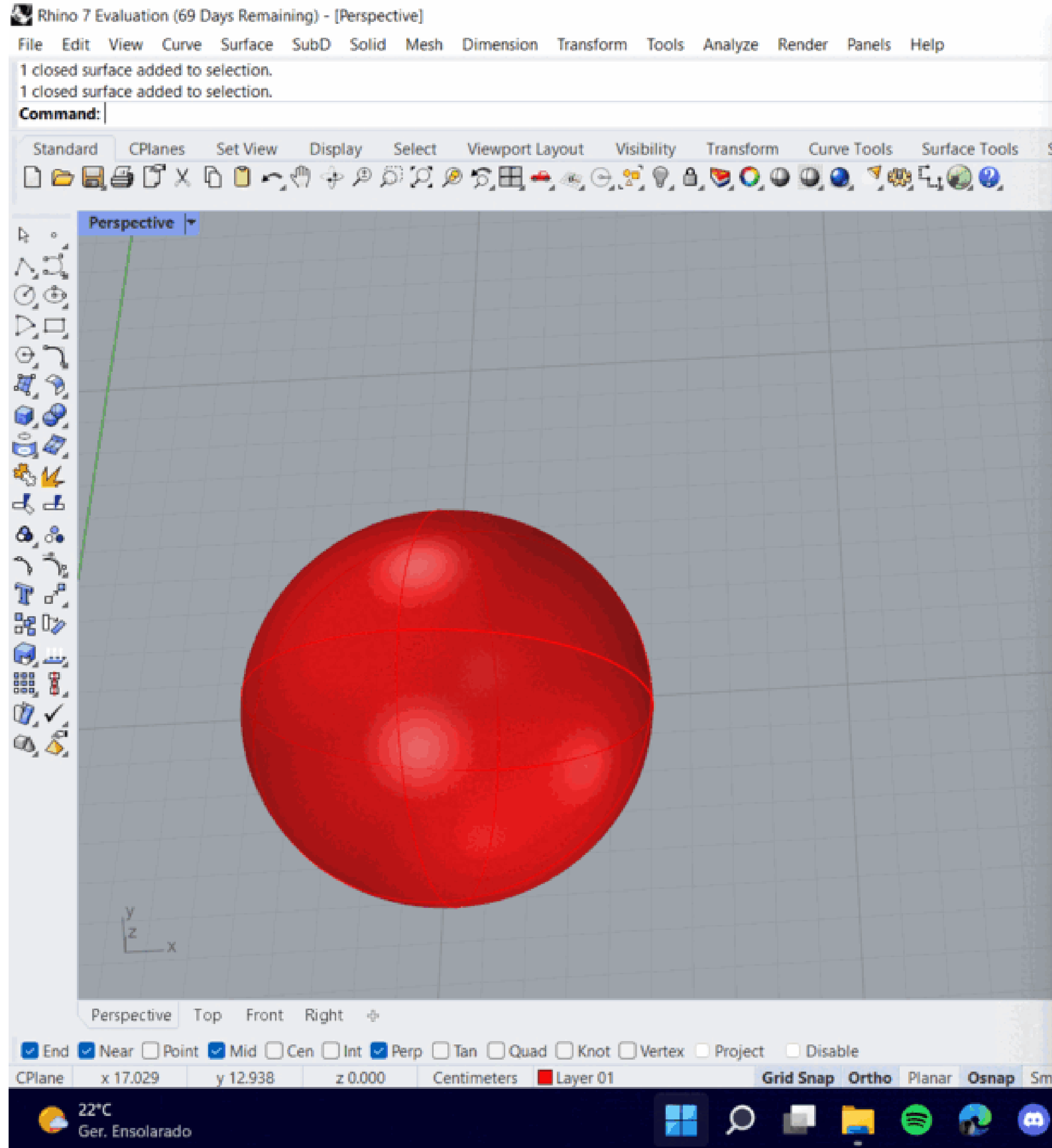


Exerc. 7.9 – Abóbada helicoidal

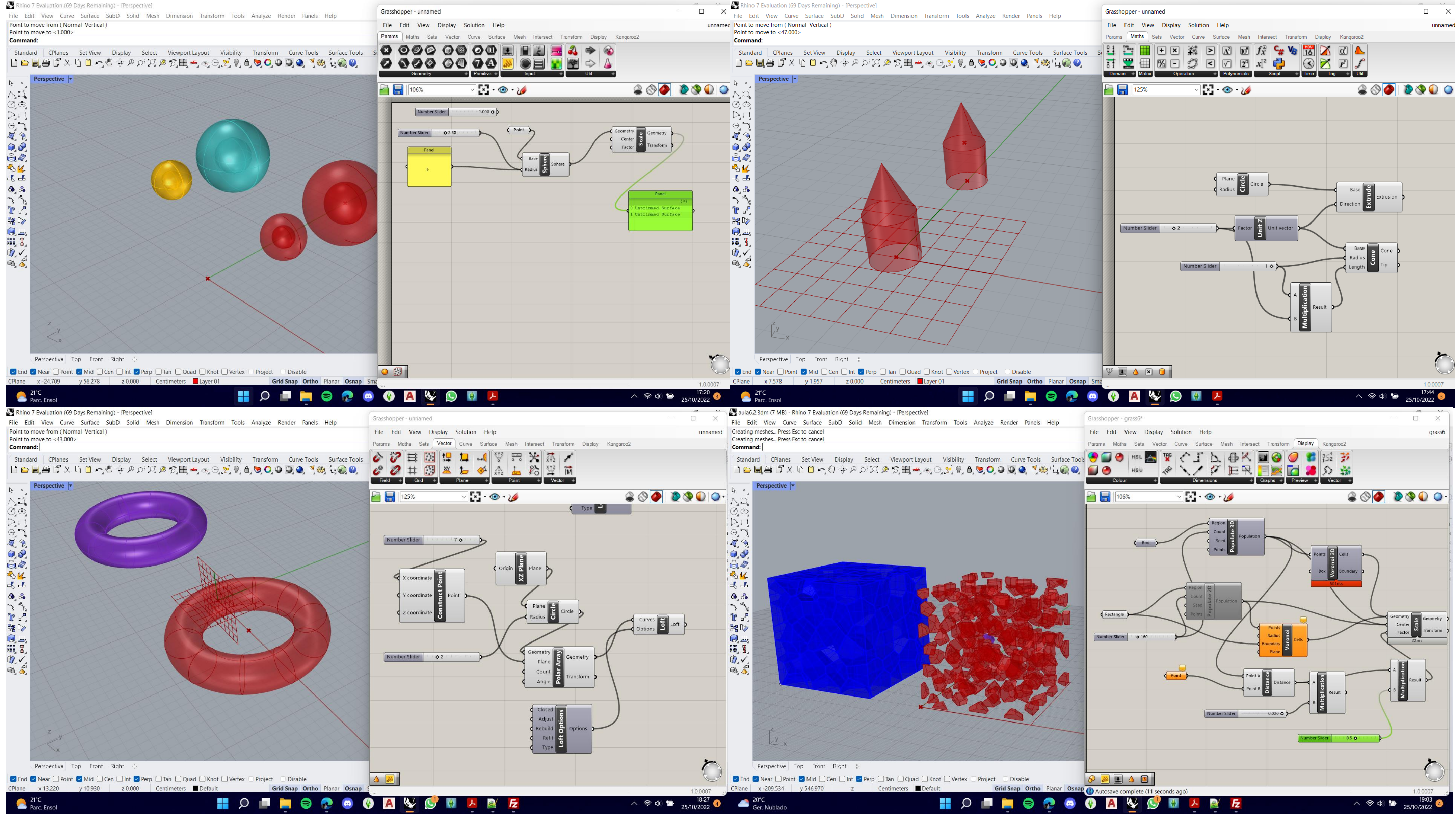


# 8- Exercícios Grasshopper



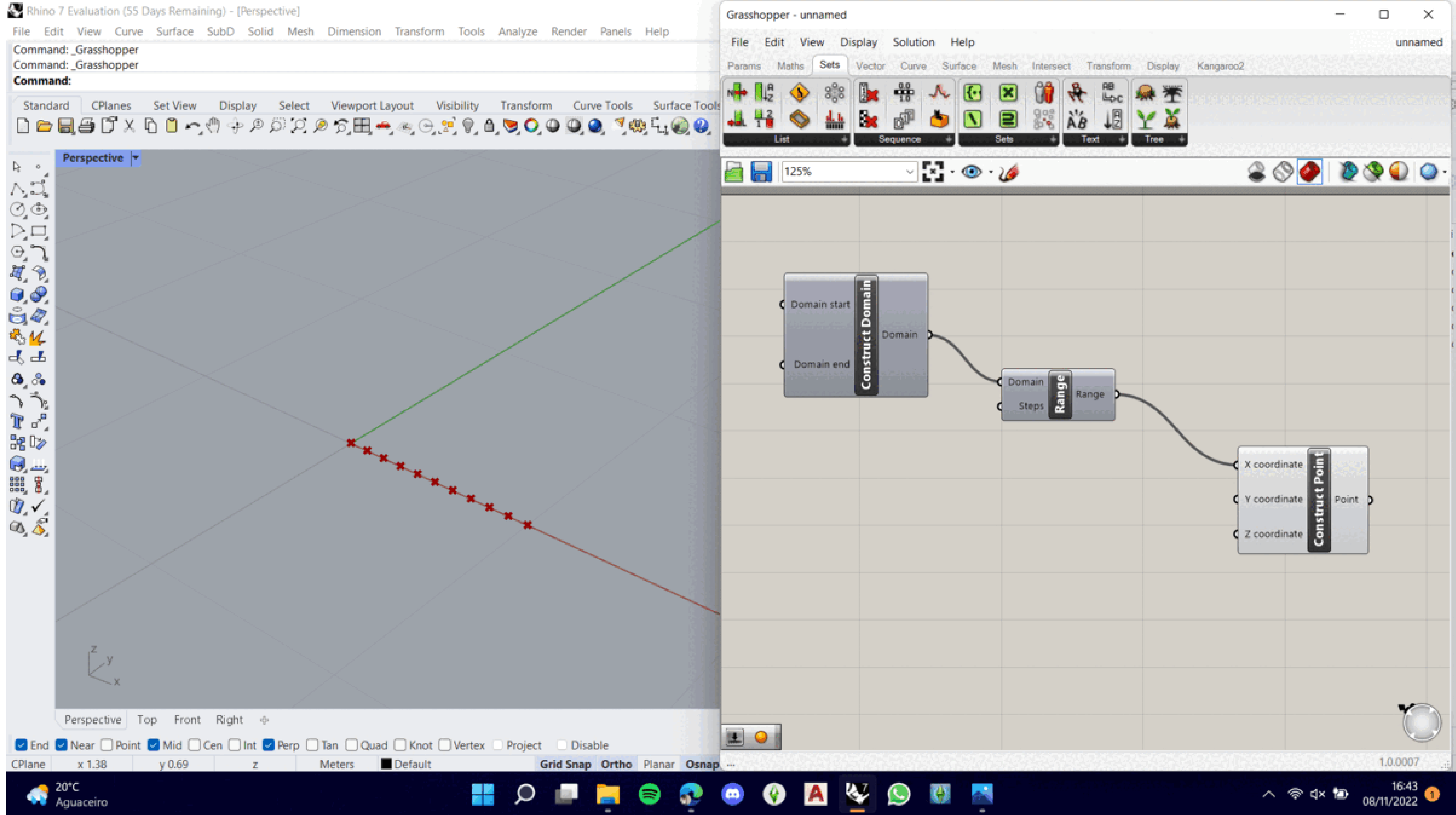


# Exerc. 8.1 - Grasshopper

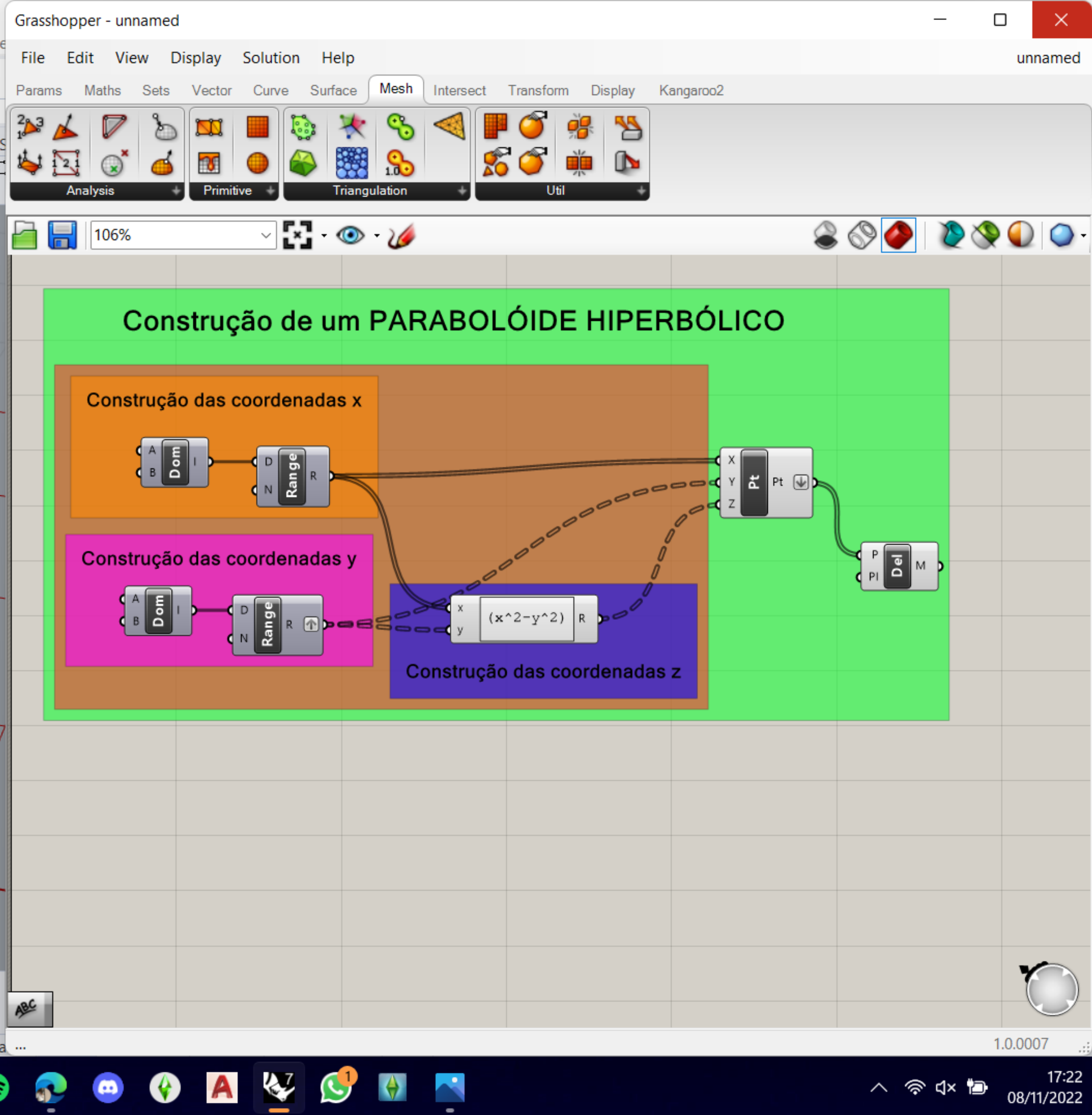
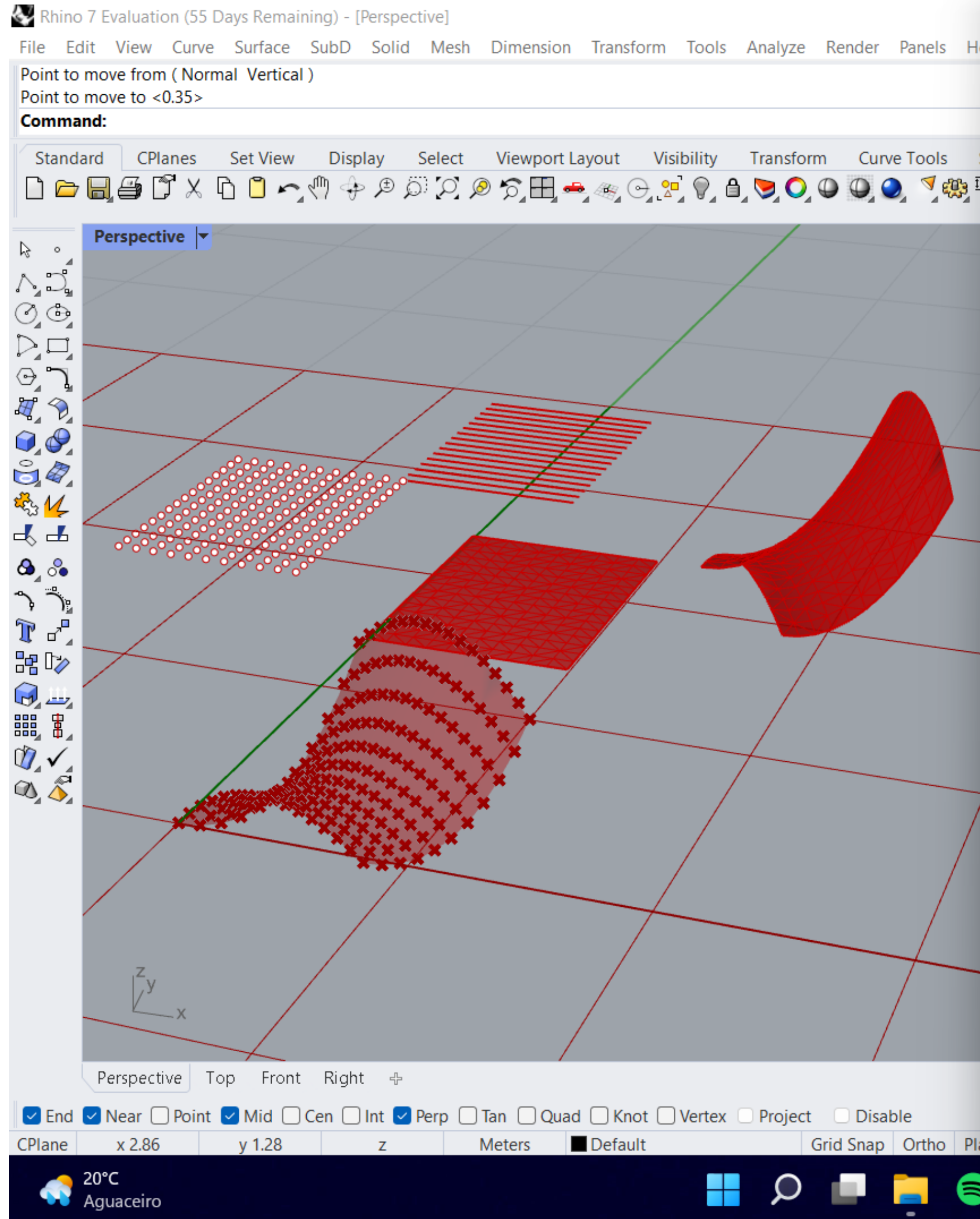


# Exerc. 8.1 - Grasshopper





# Exerc.8.2 - Grasshopper



# Exerc. 8.2 - Grasshopper