

# • Modelação e Visualização Tridimensional em Arquitectura

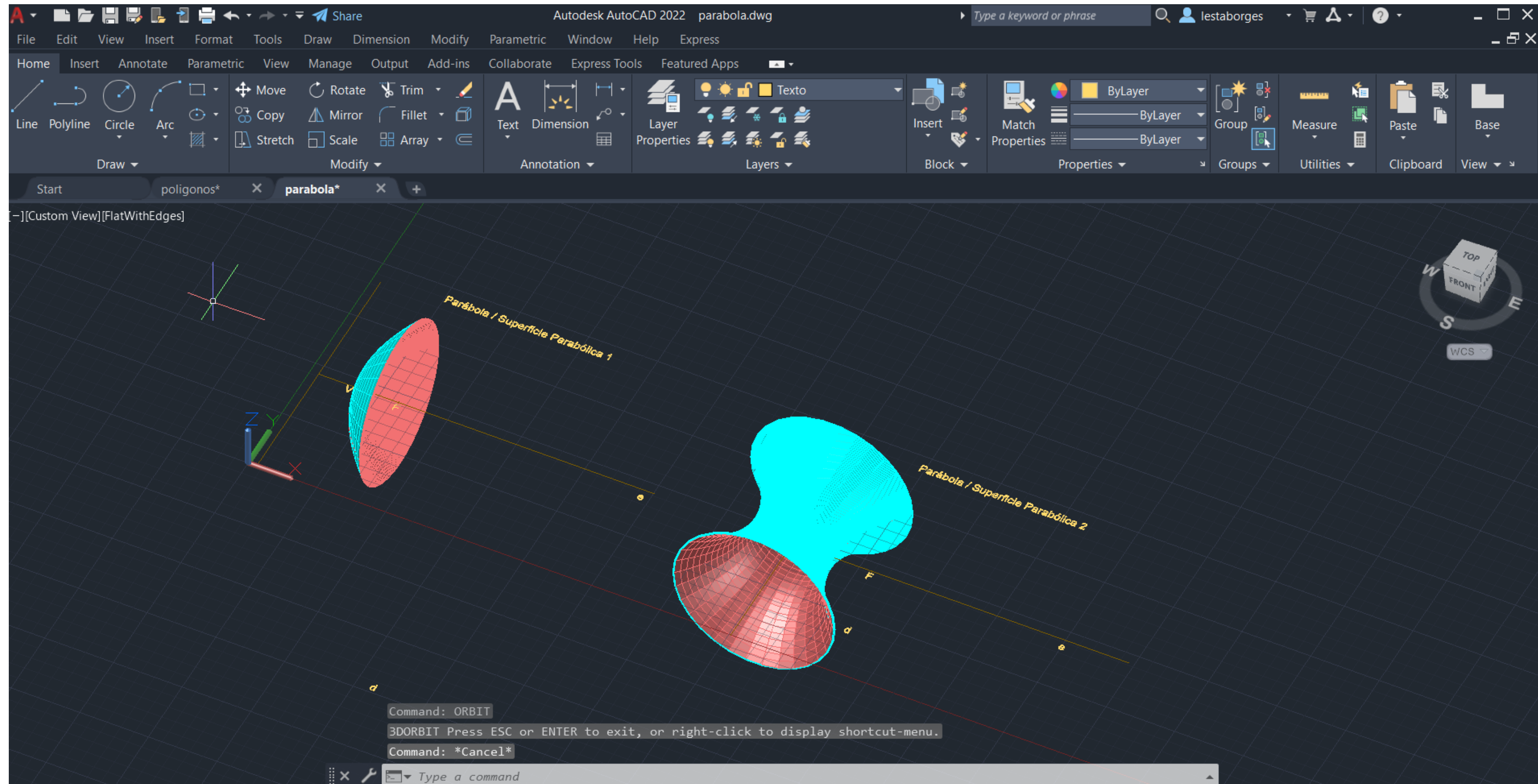
20201259



• LEANDRA BORGES

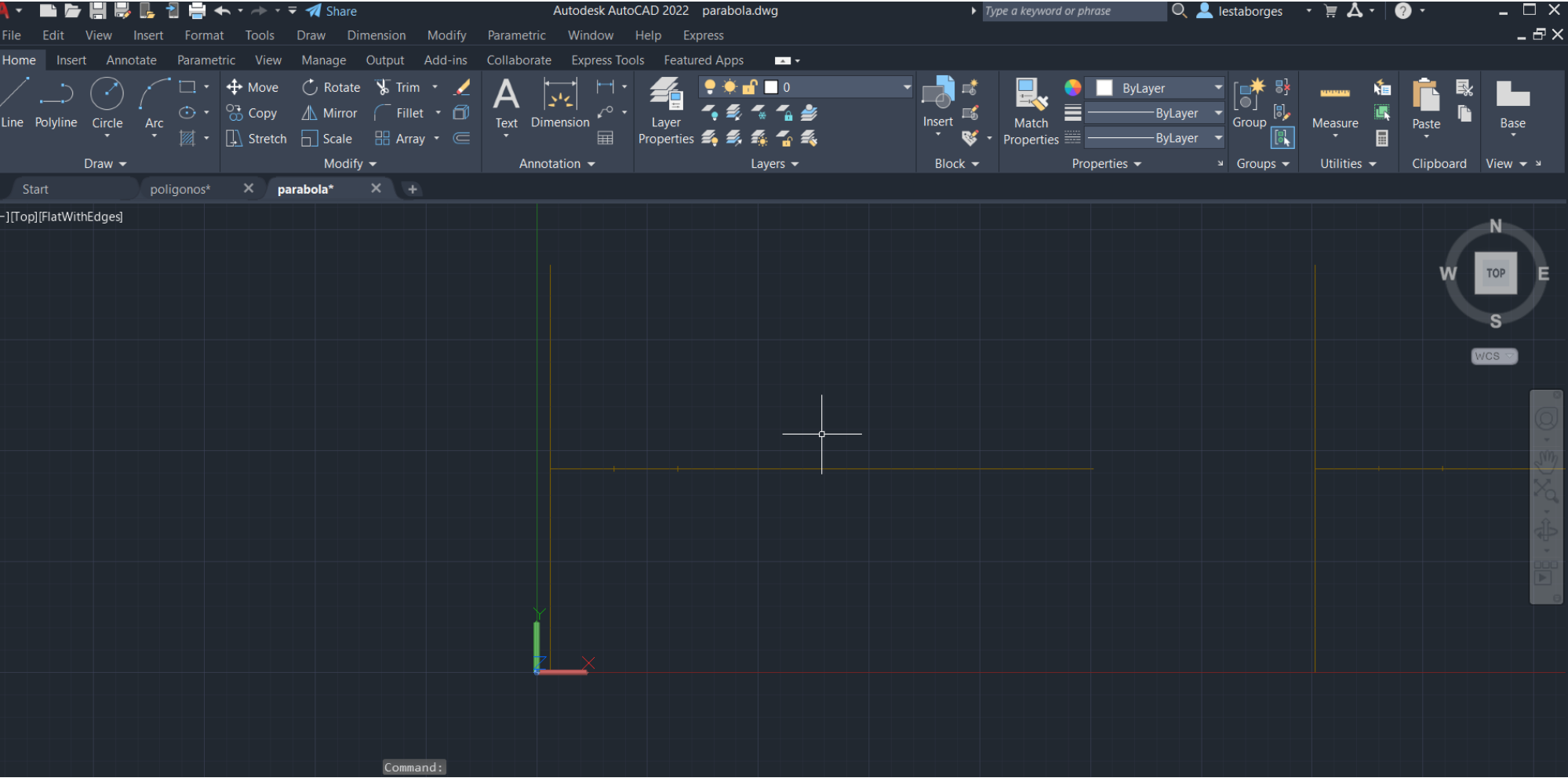
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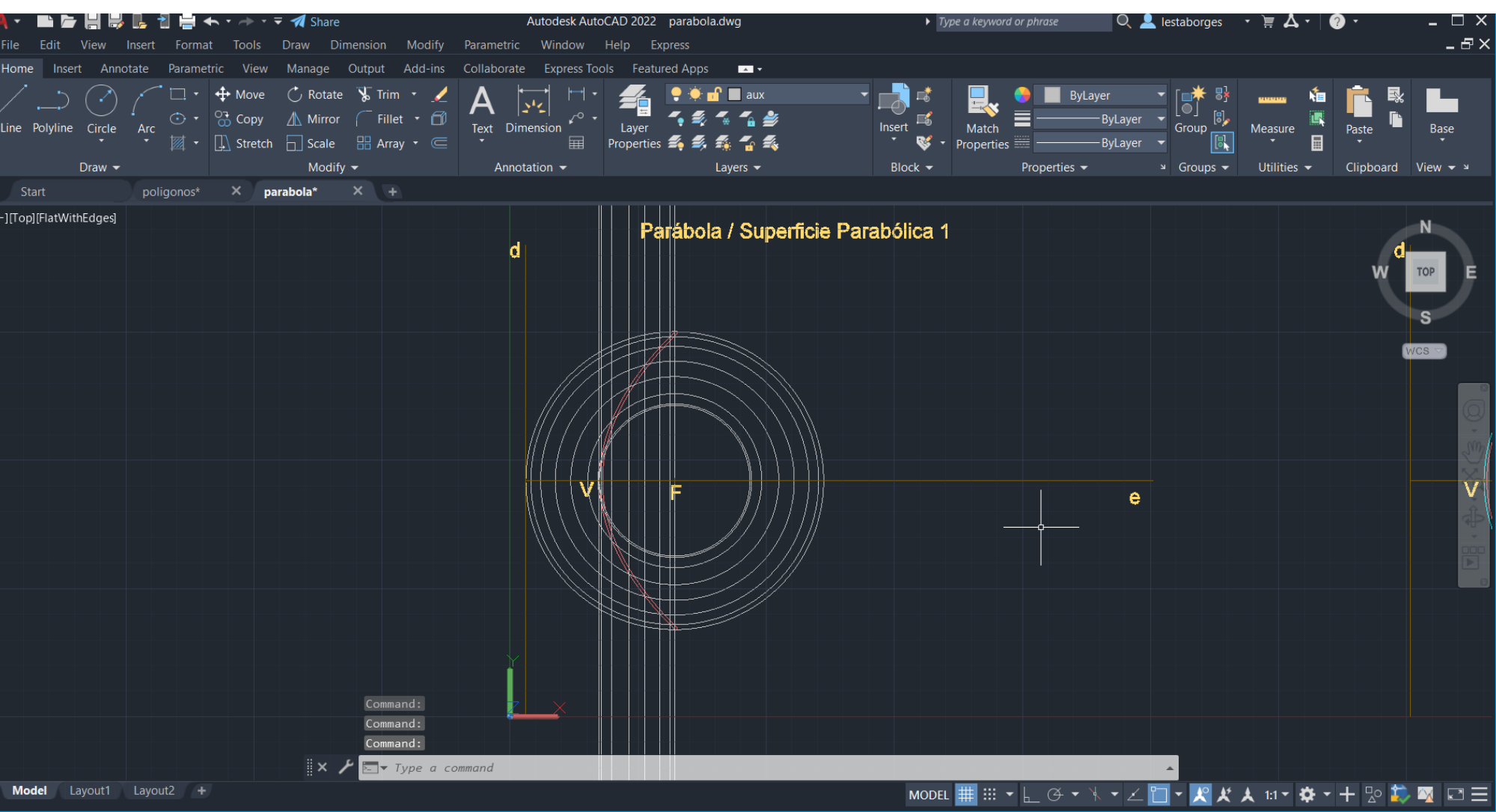


# Exerc. 1.1 - Superfície Parabólica

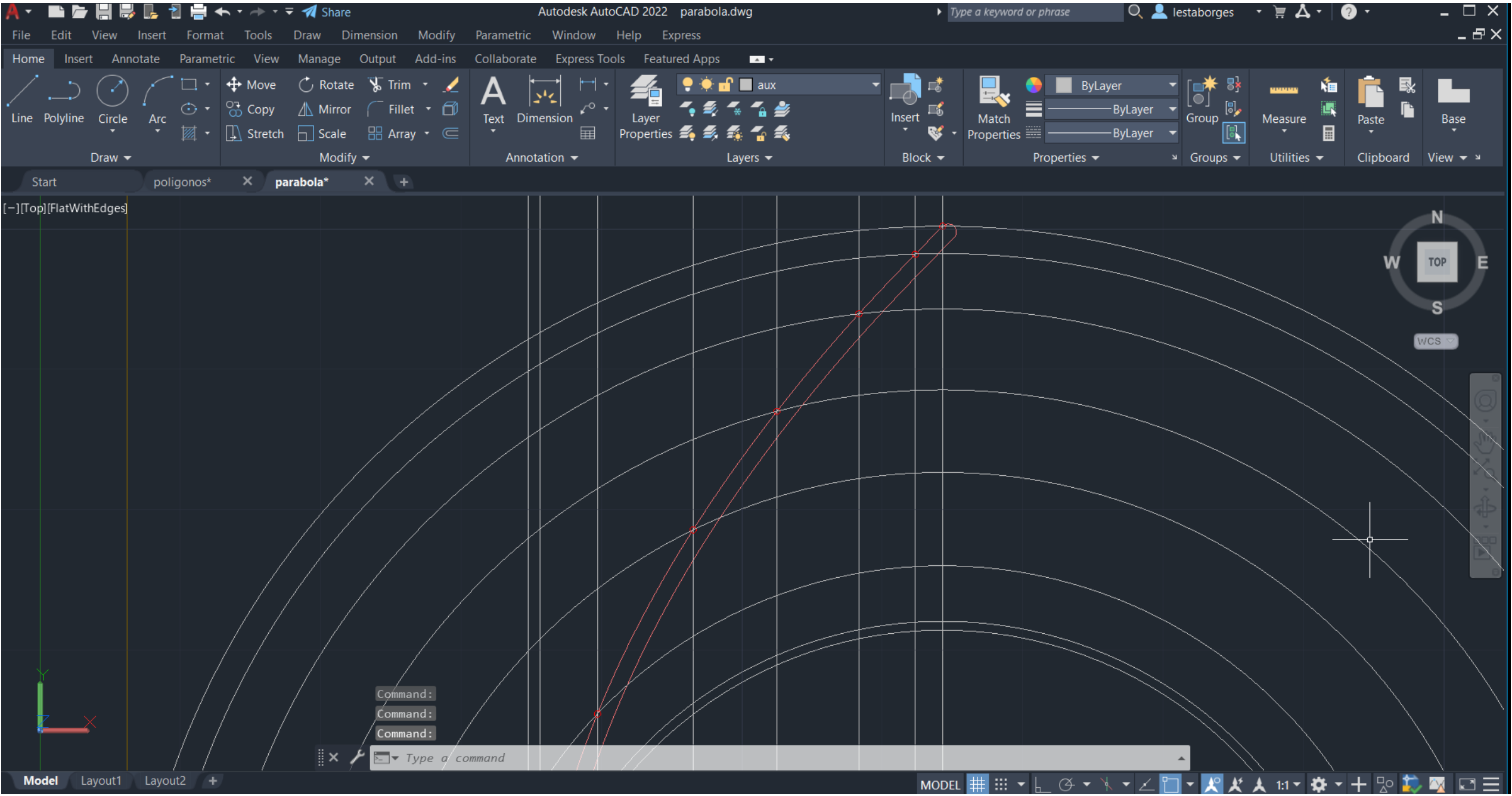
# Desenho dos elementos diretores



# Criação linhas auxiliares

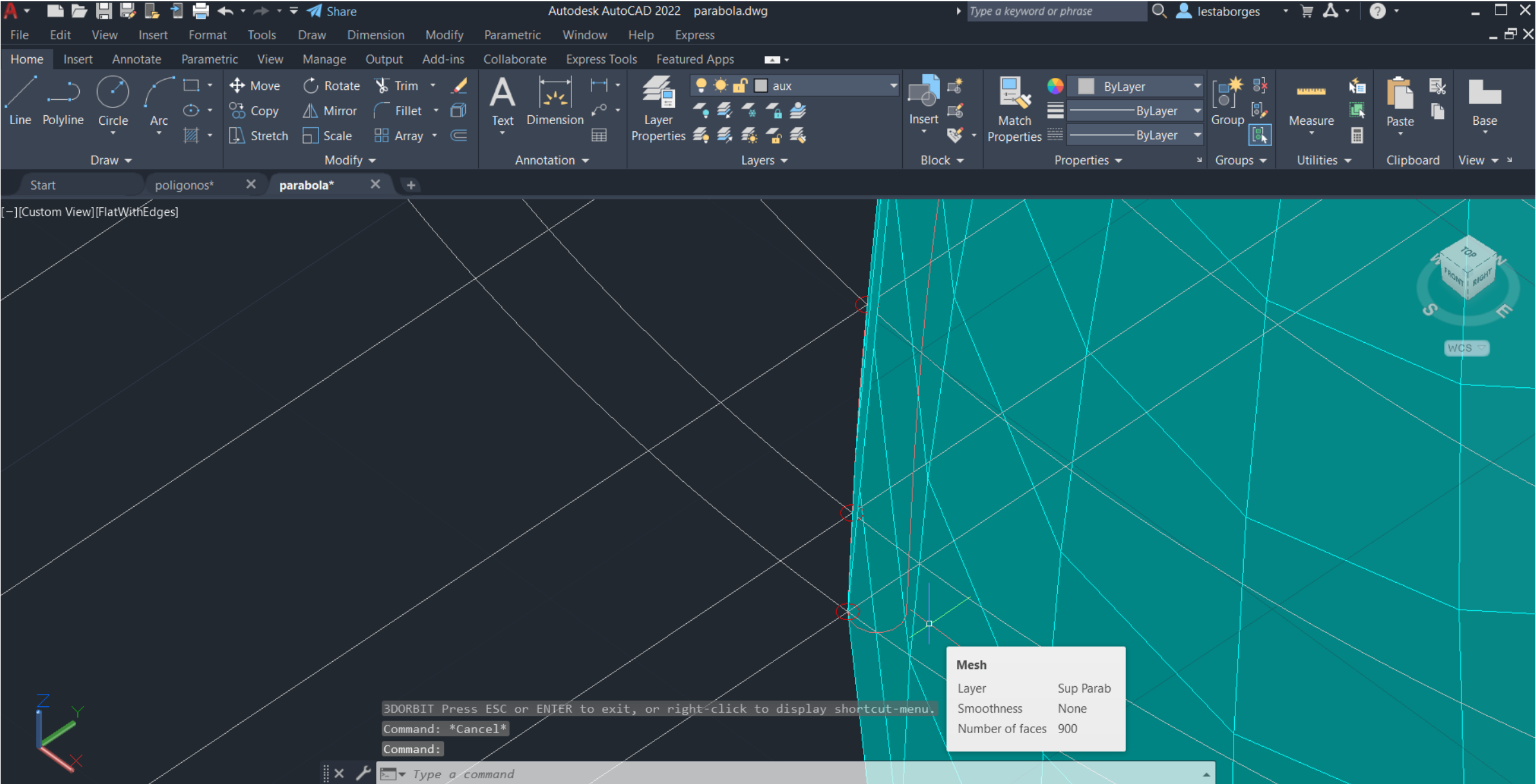
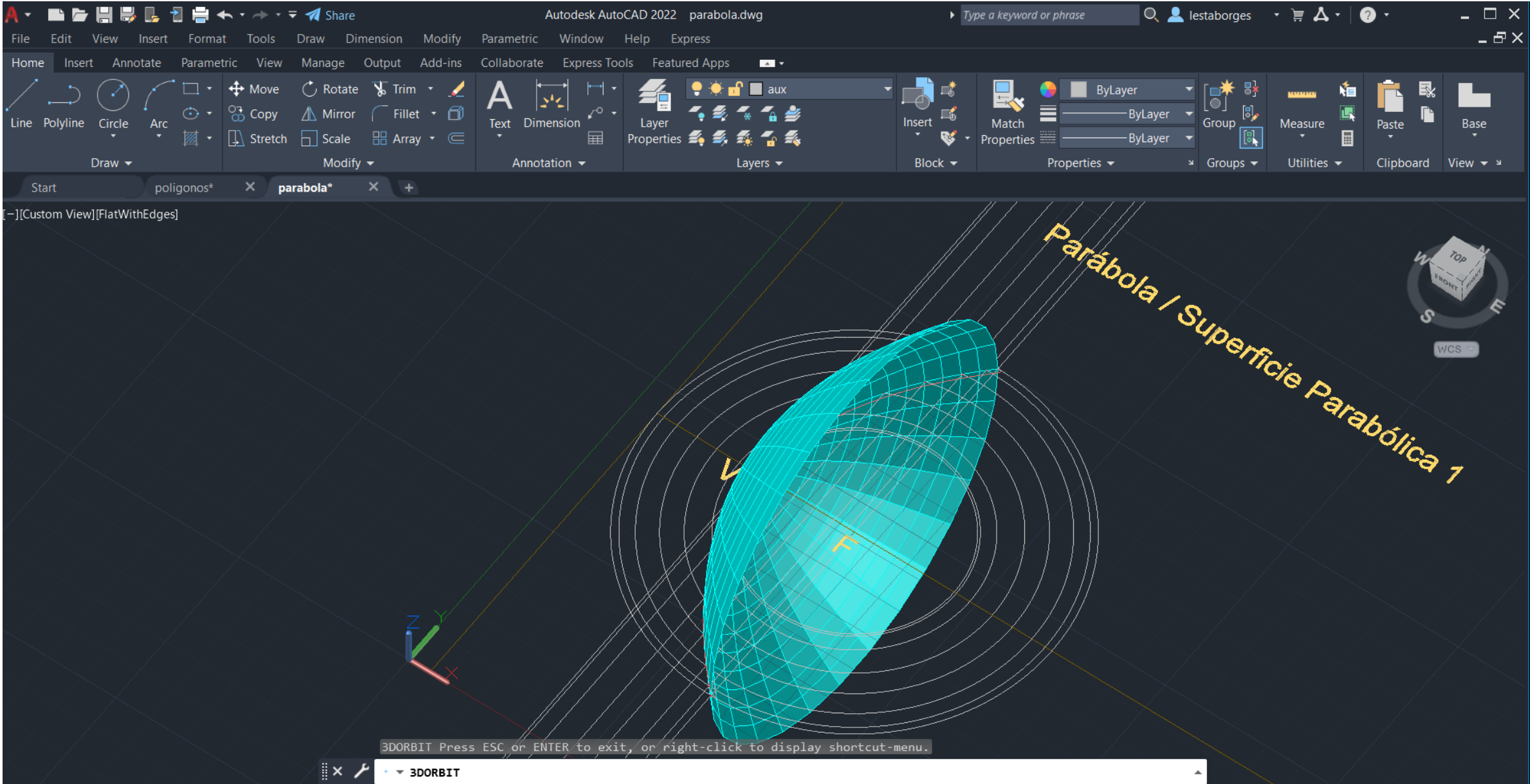


# Interseção das linhas



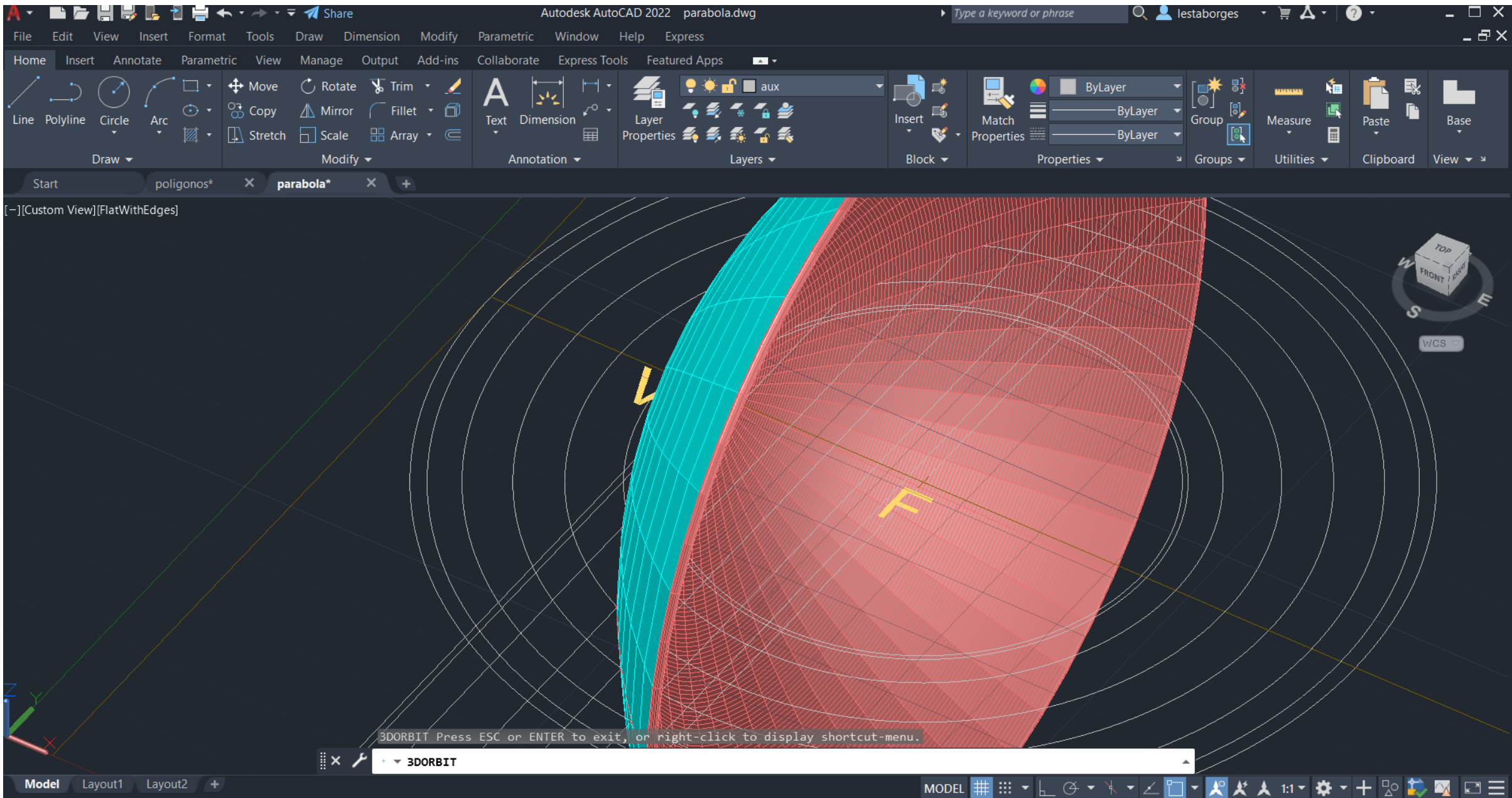
# Exerc. 1.1 - Superfície Parabólica

Superfície parabólica – comando *Revsurf*

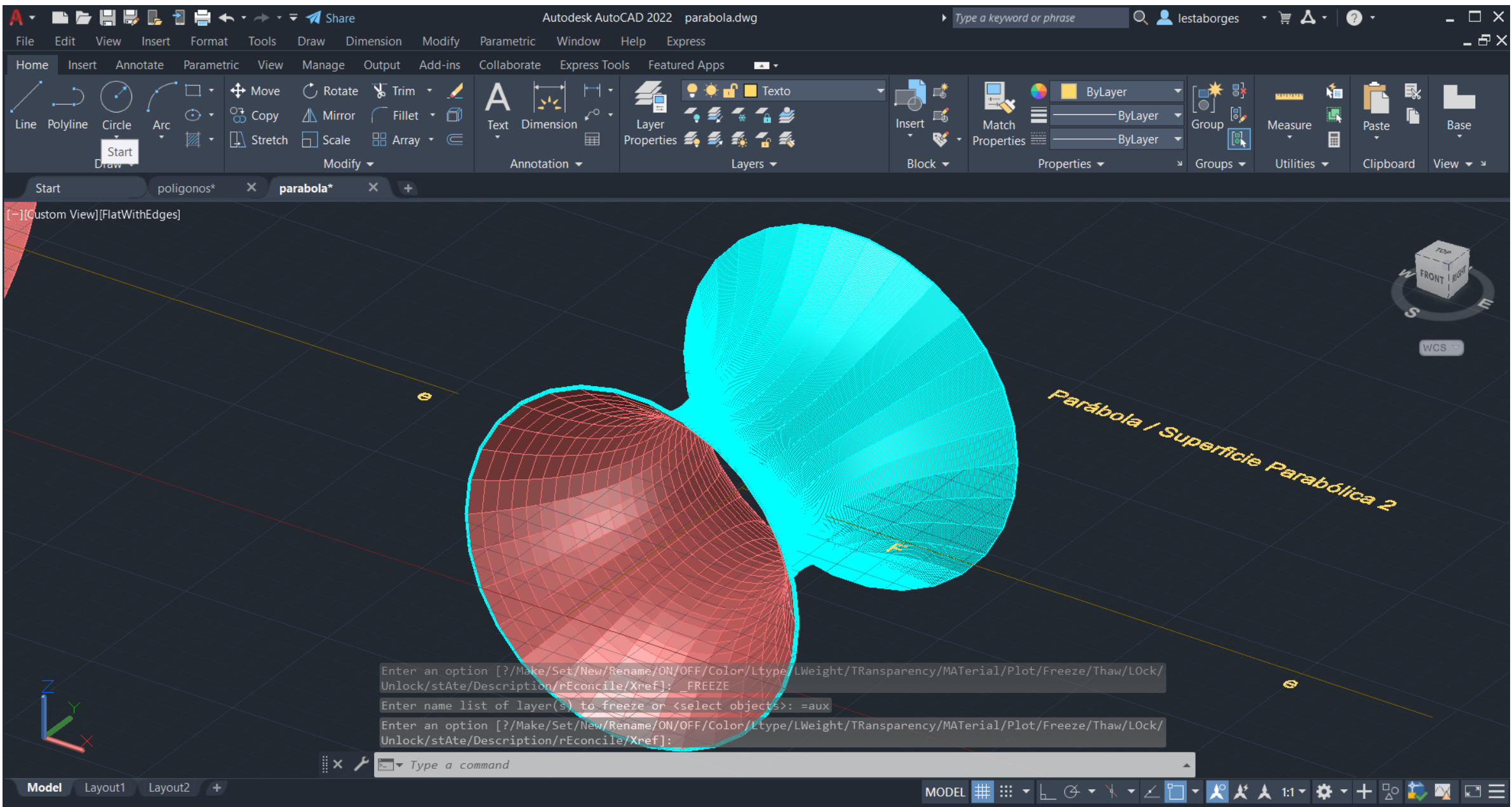


Exerc. 1.1 - Superfície Parabólica

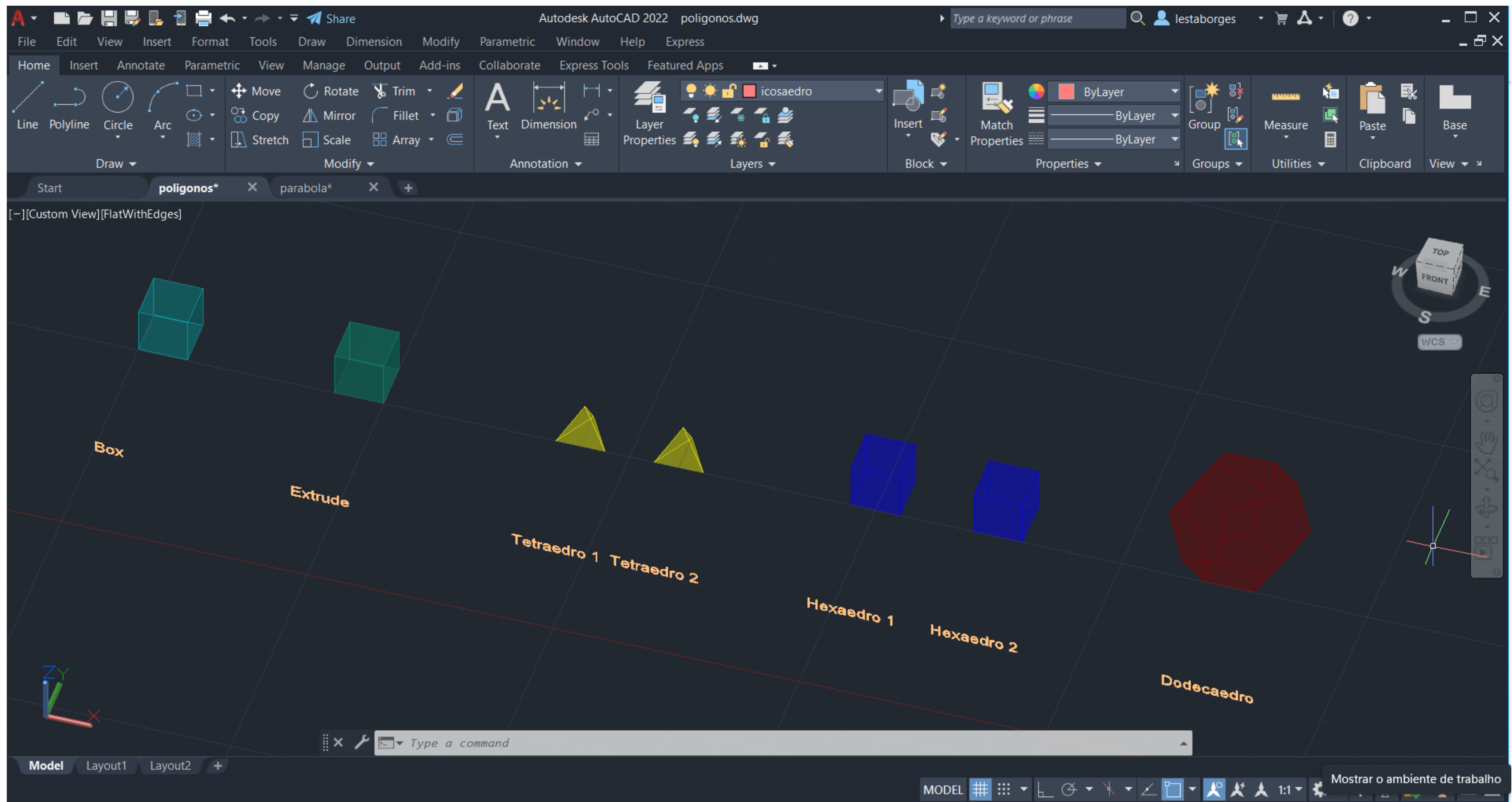
## Duplicação da superfície parabólica



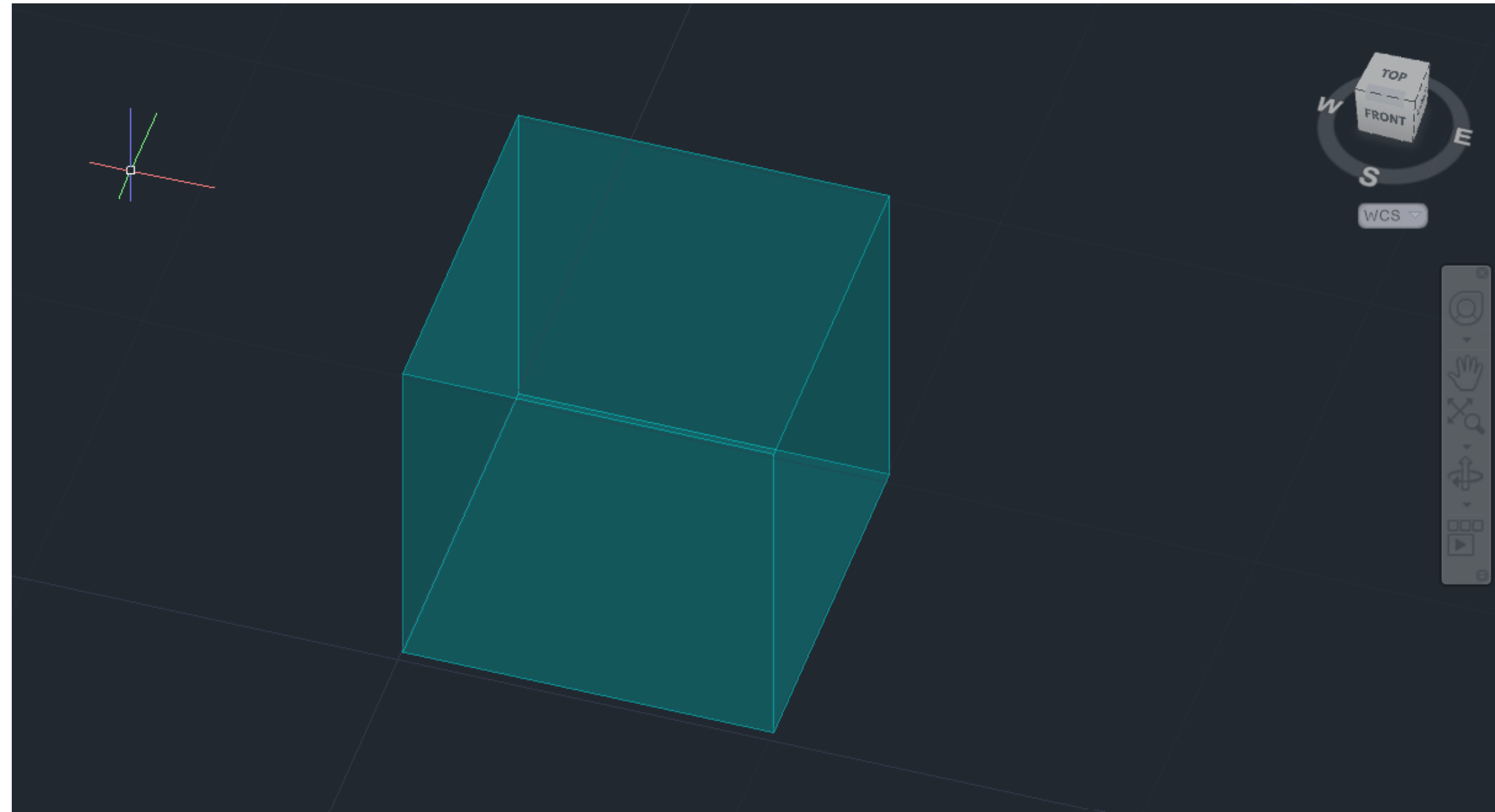
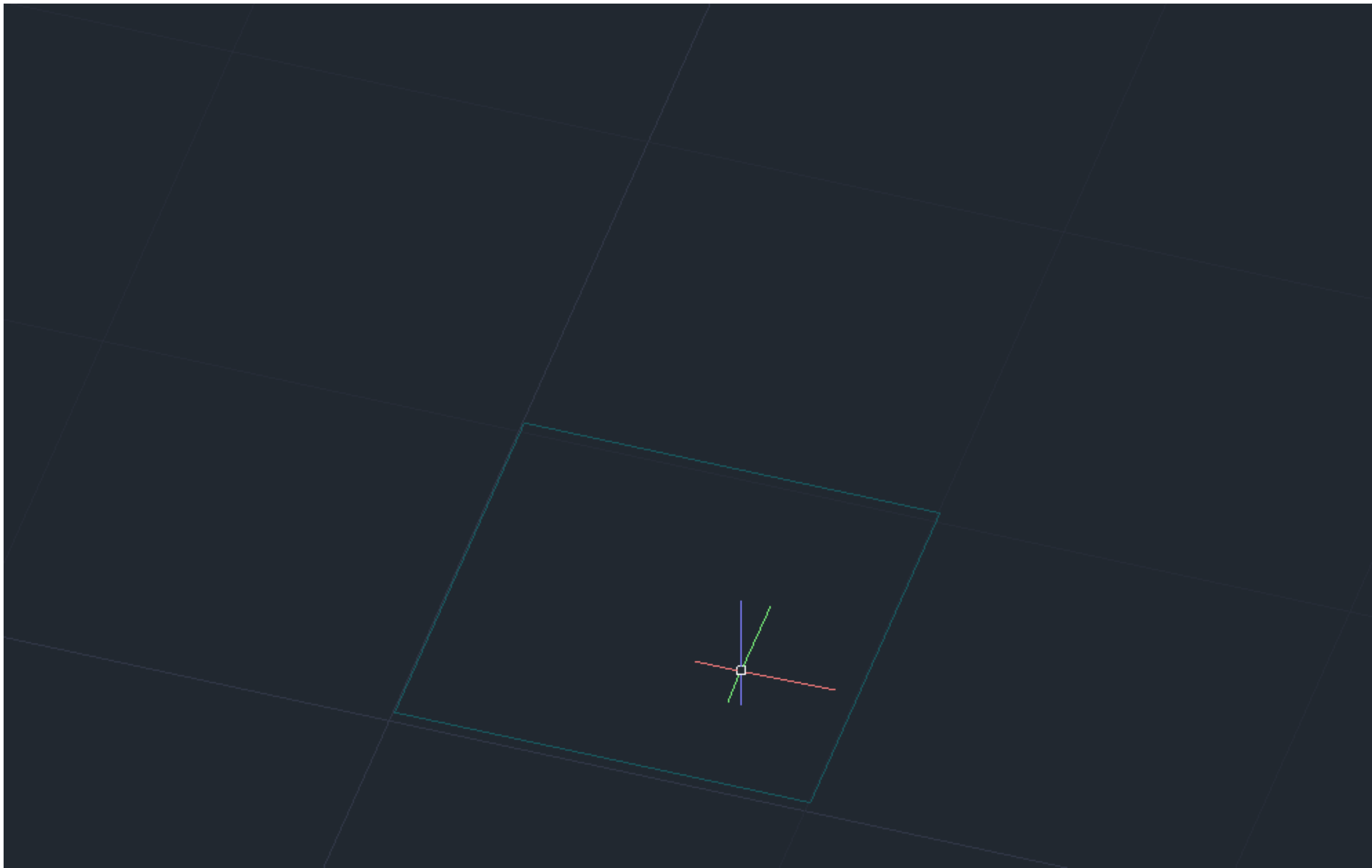
## Segunda superfície parabólica



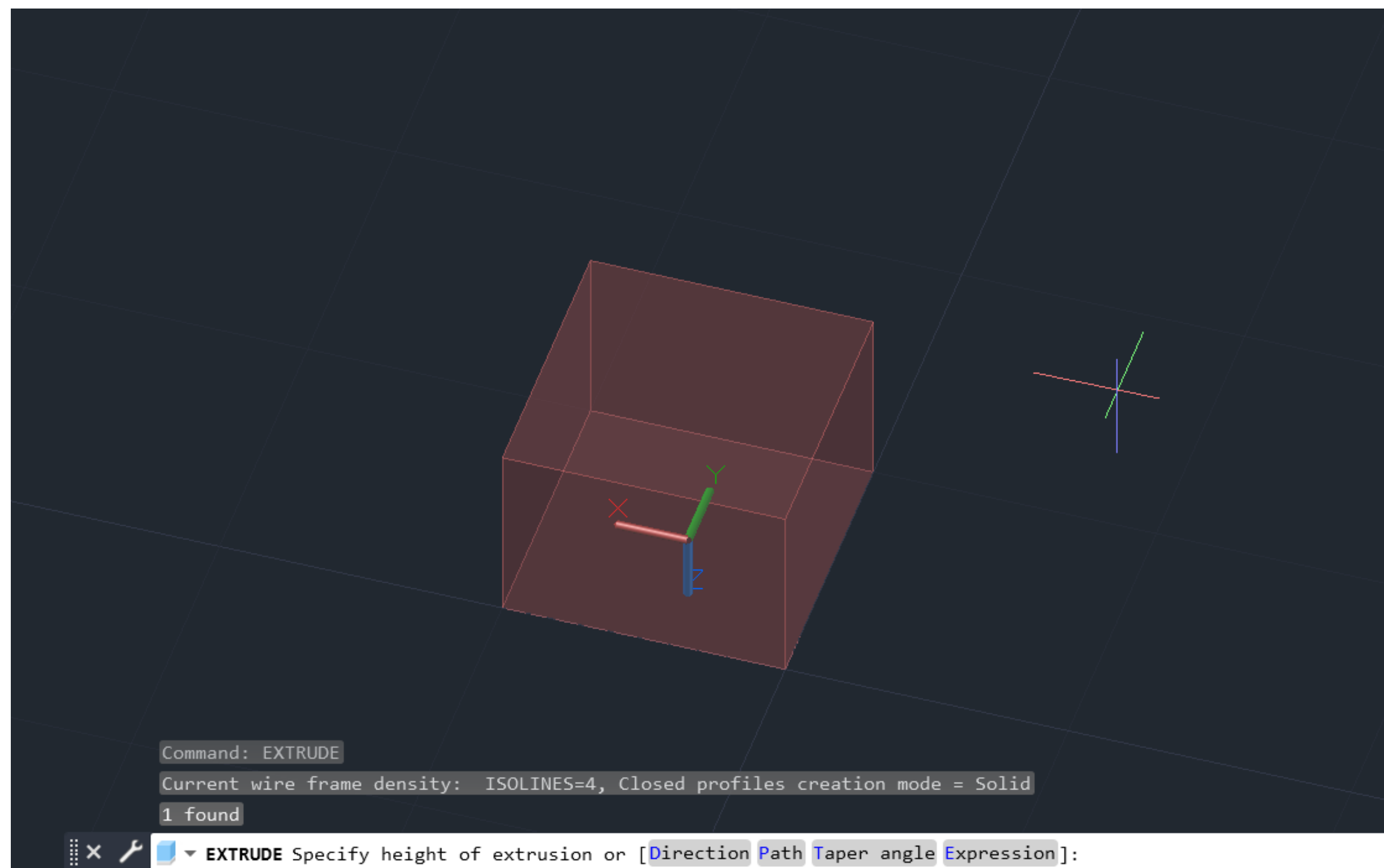
# Exerc. 1.1 - Superfície Parabólica



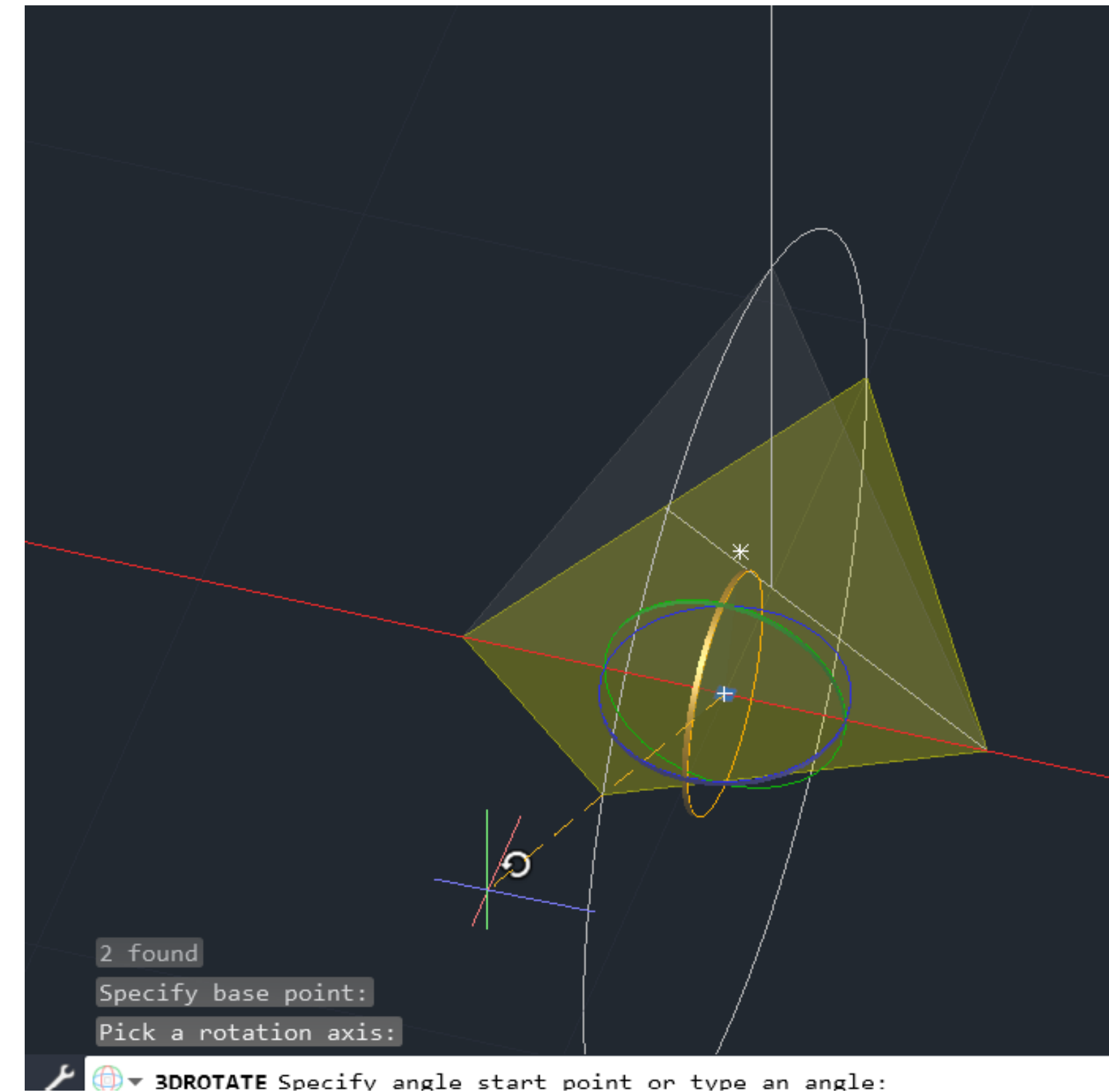
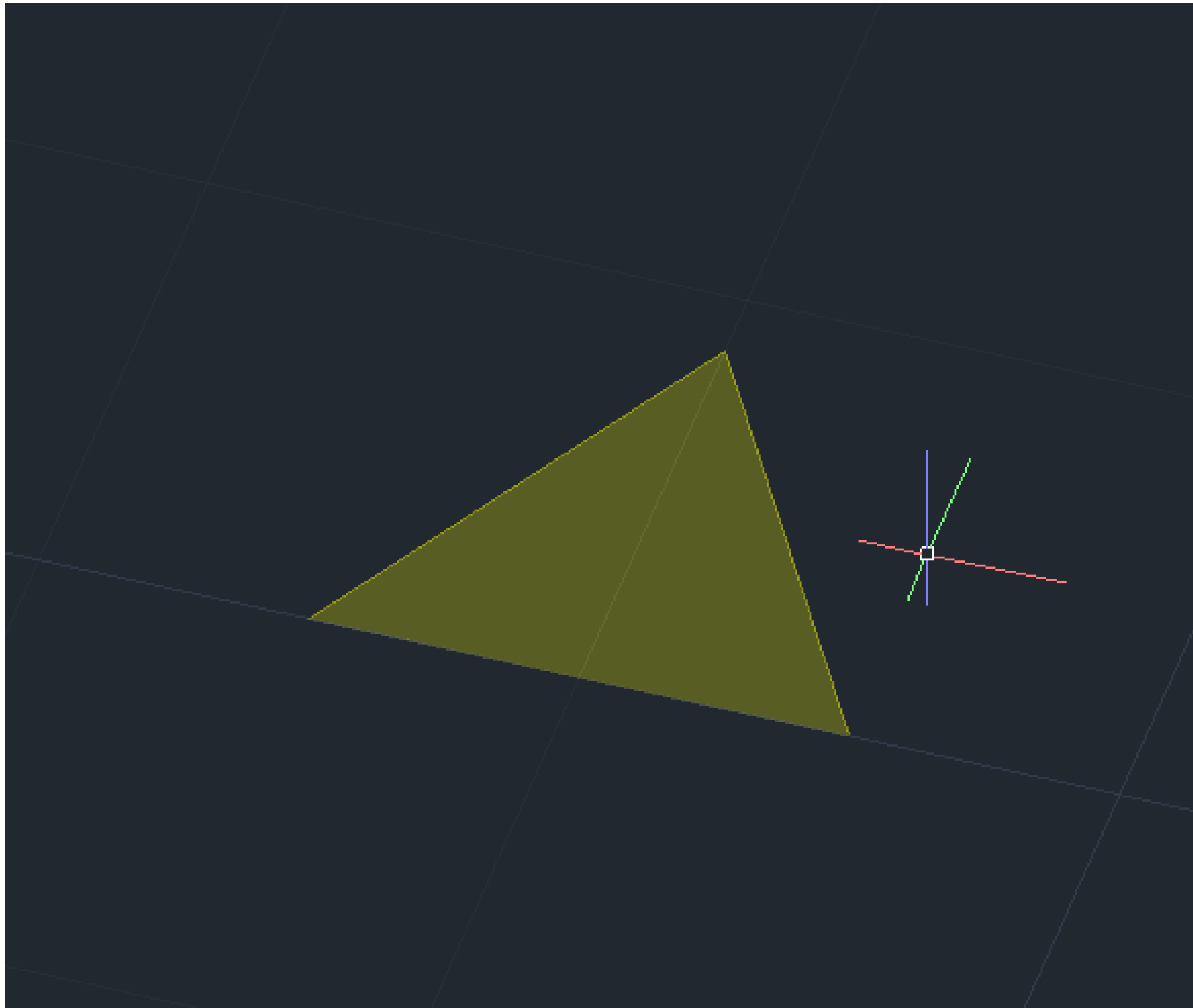
# Exerc. 2 - Poliedros



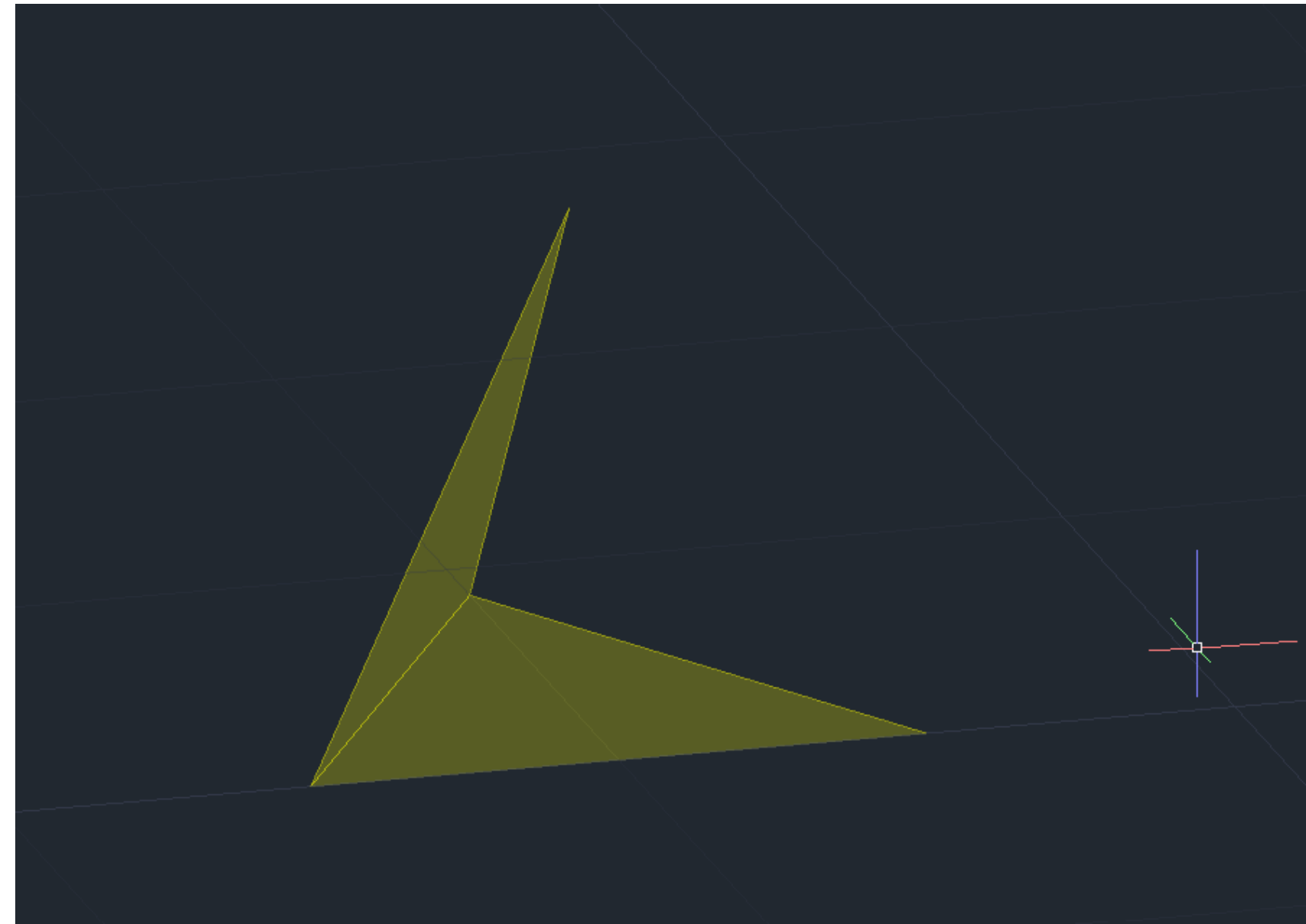
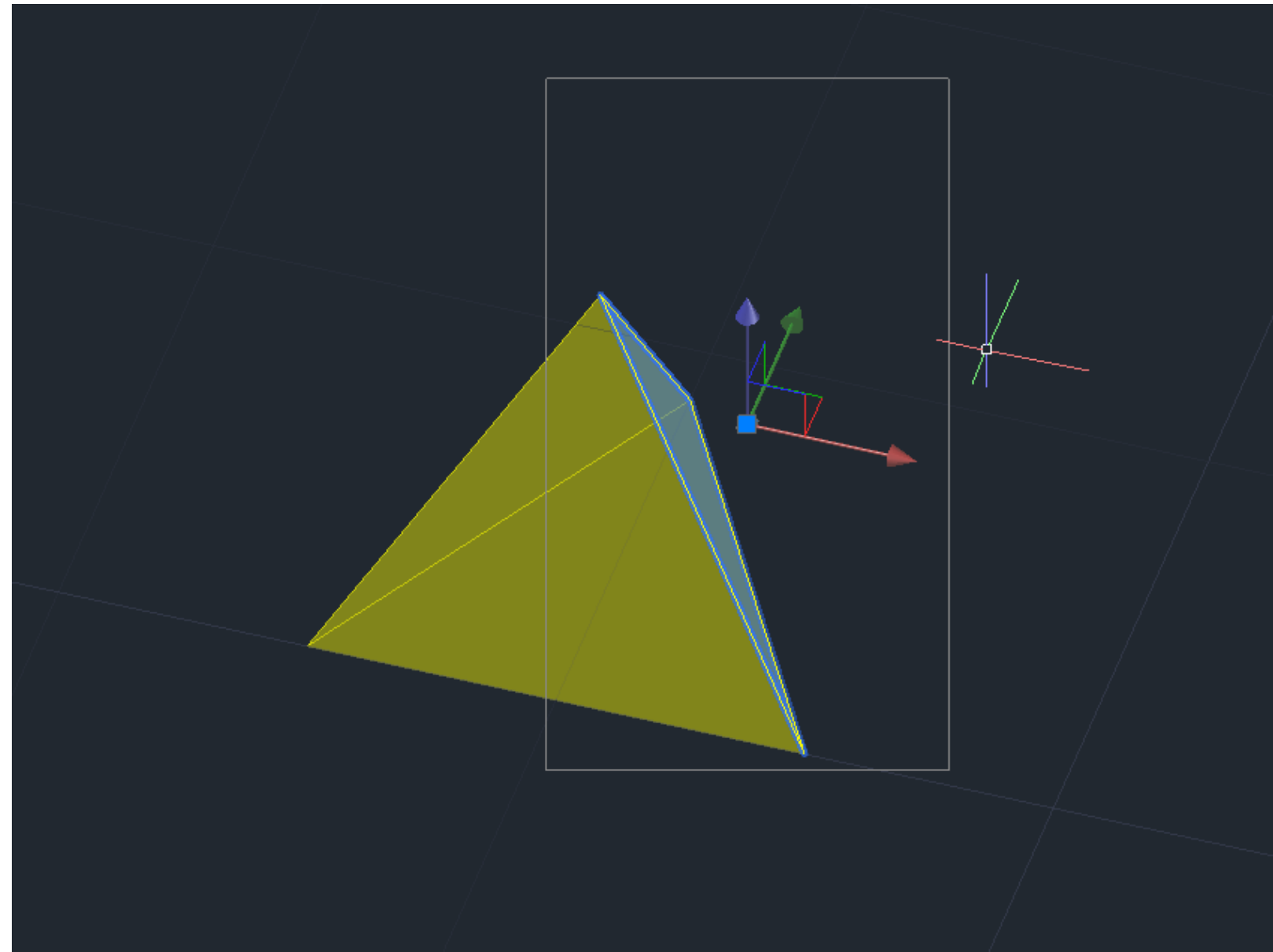
Exerc. 2.1 – Hexaedro – Comando *Box*



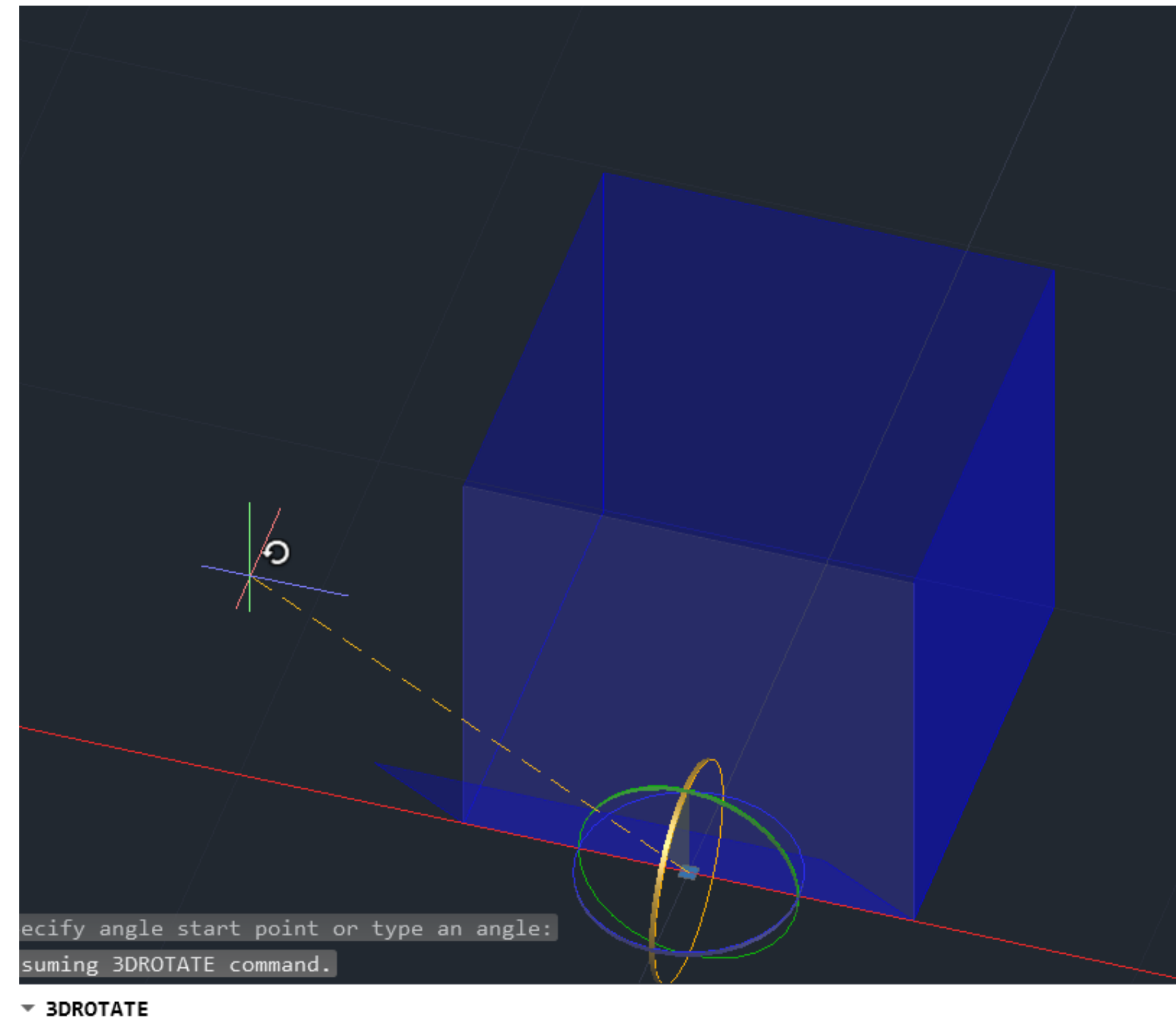
# Exerc. 2.2 – Hexaedro – Comando *Extrude*



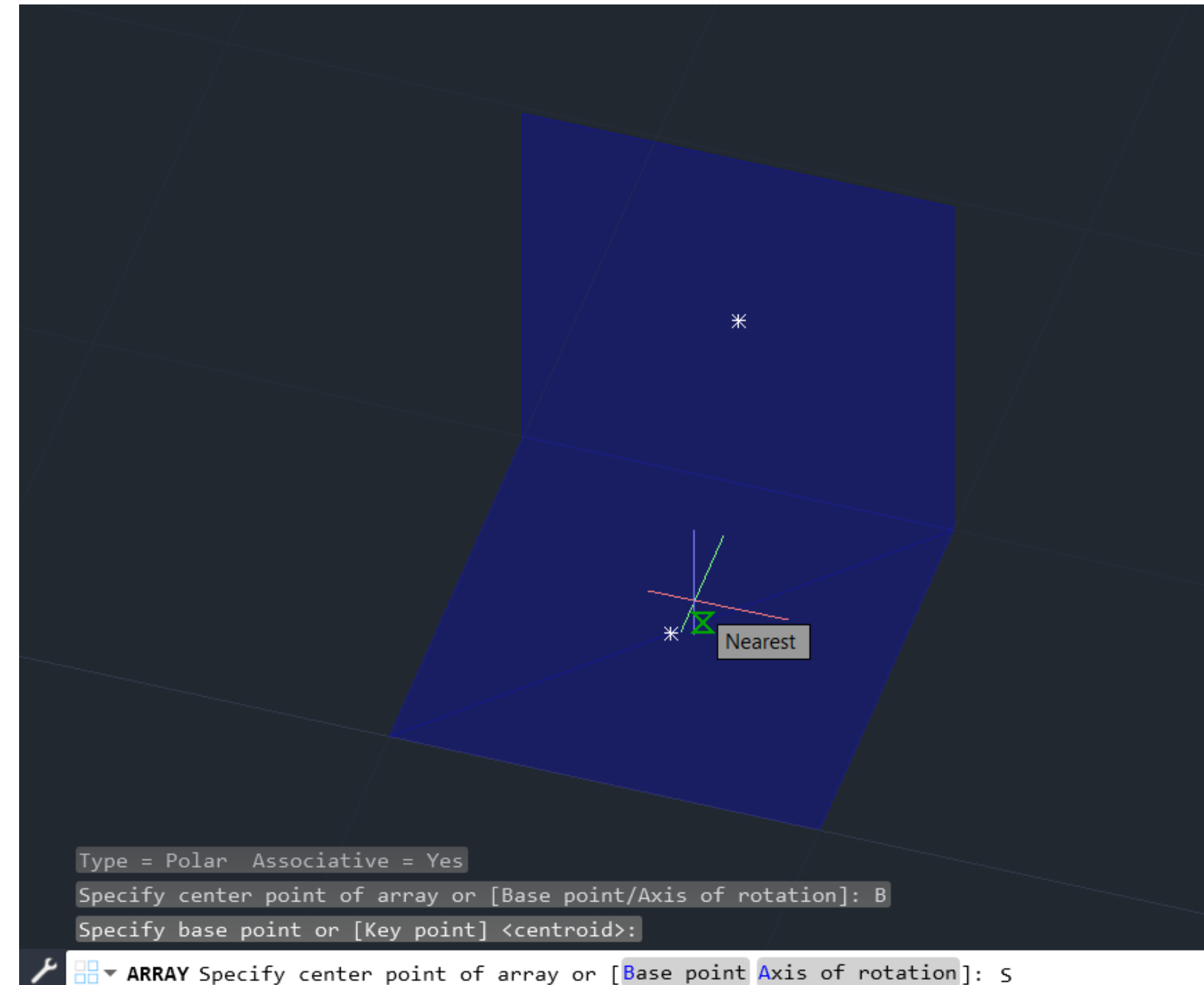
Exerc. 2.3 – Tetraedro - Comando *3DRotate*



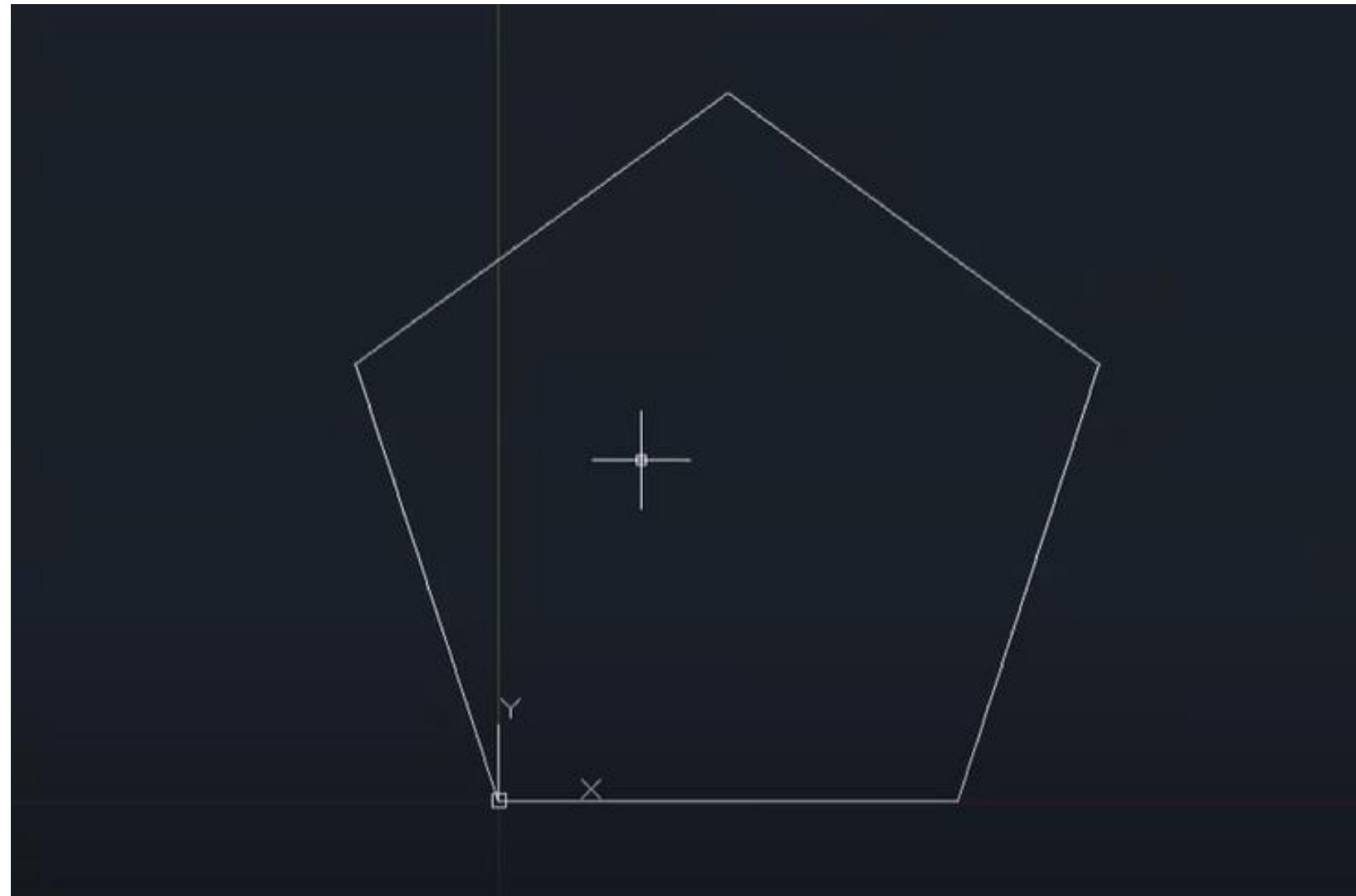
# Exerc. 2.4 – Tetraedro - Comando A



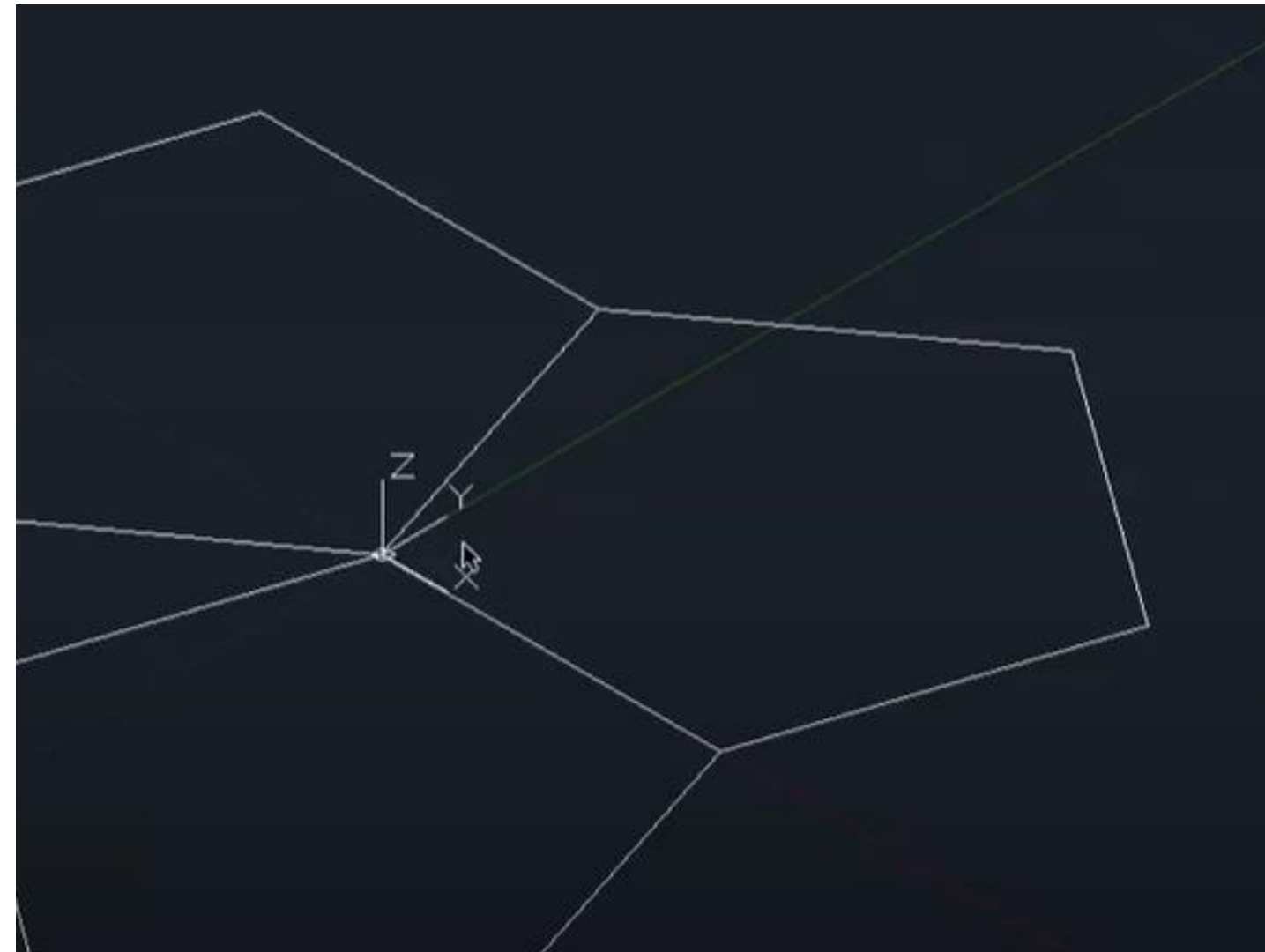
## Exerc. 2.5 – Hexaedro – Comando *3DRotate*



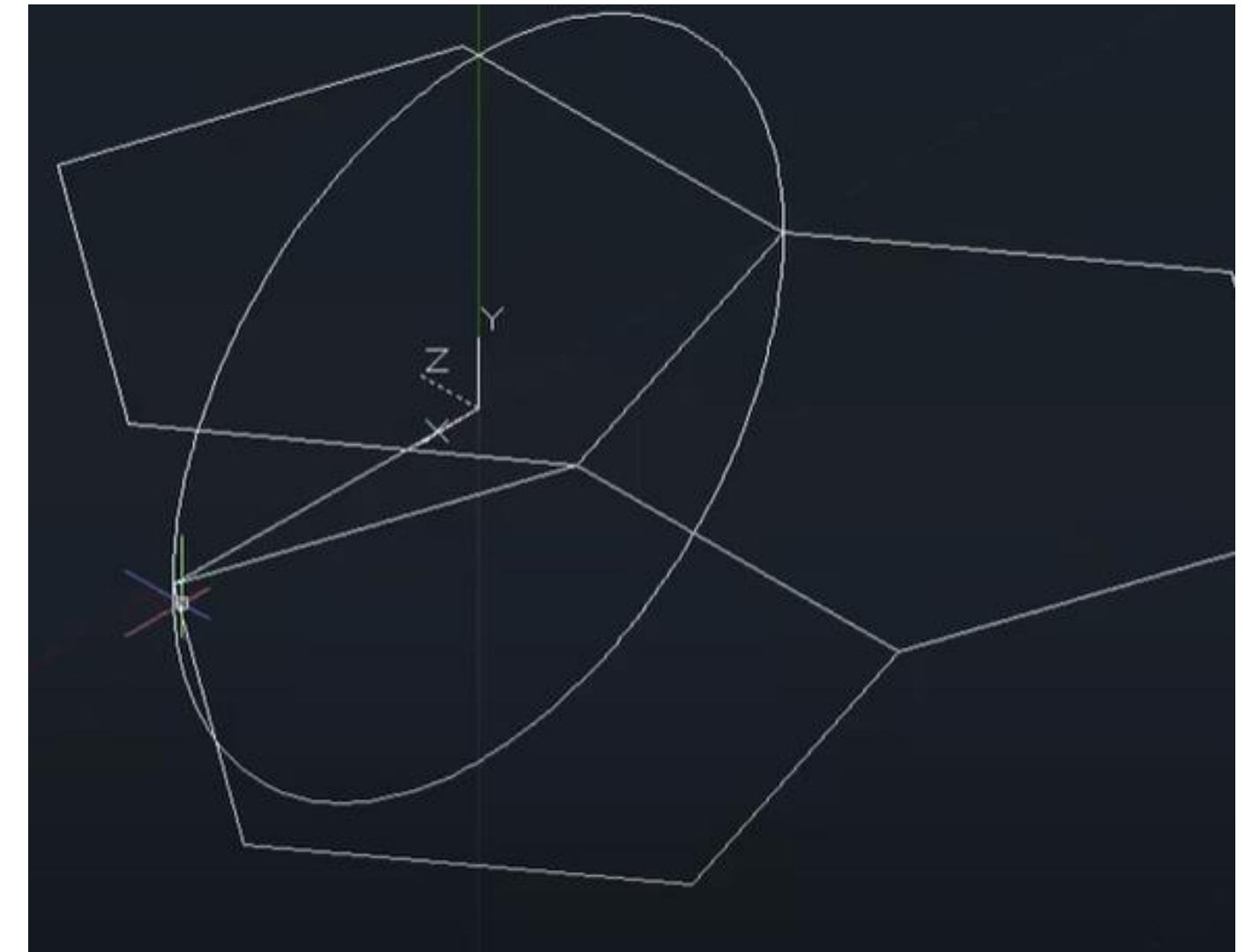
# Exerc. 2.6 – Hexaedro – Comando *Array*



Base pentagonal

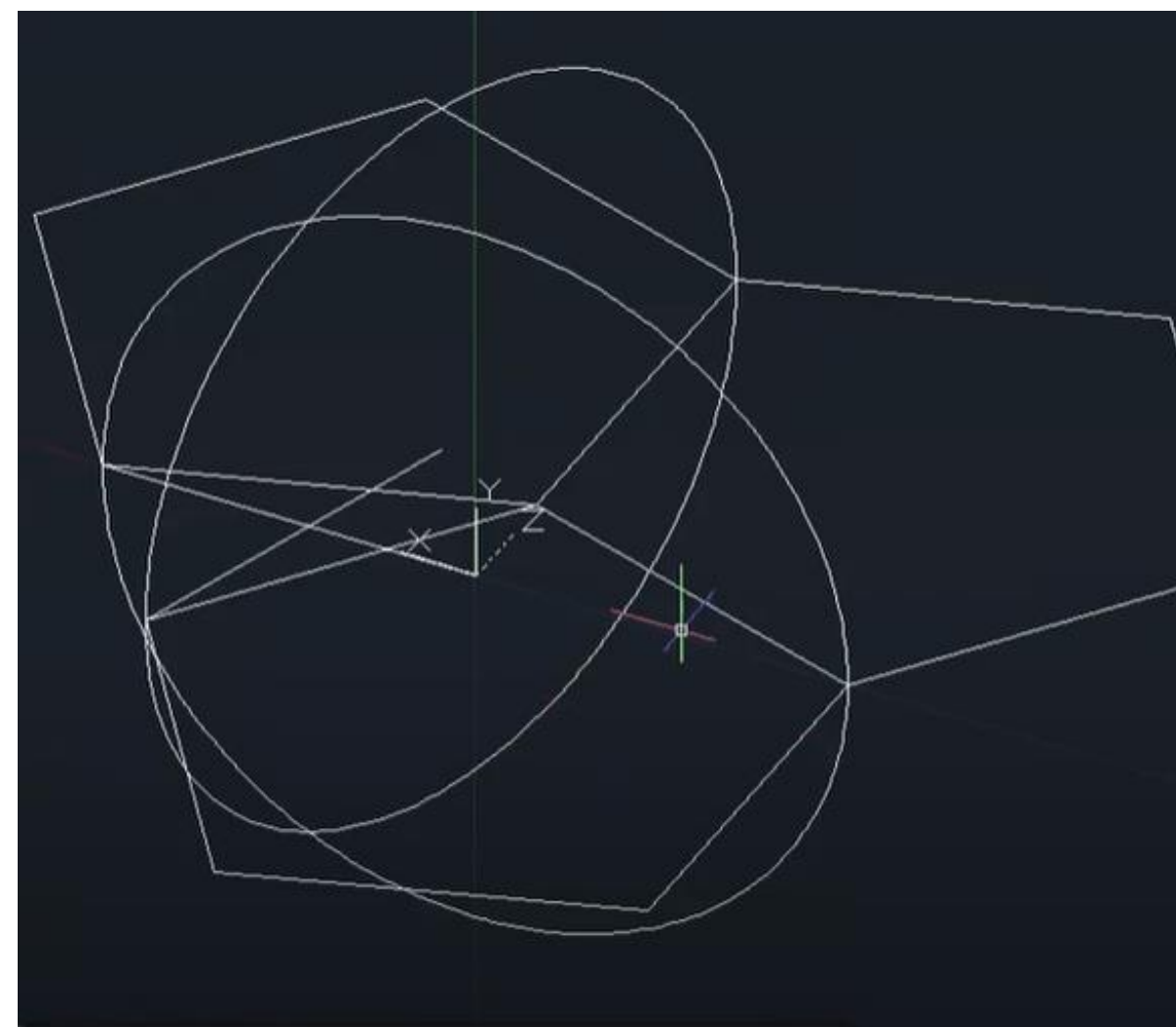


Comando *Mirror*

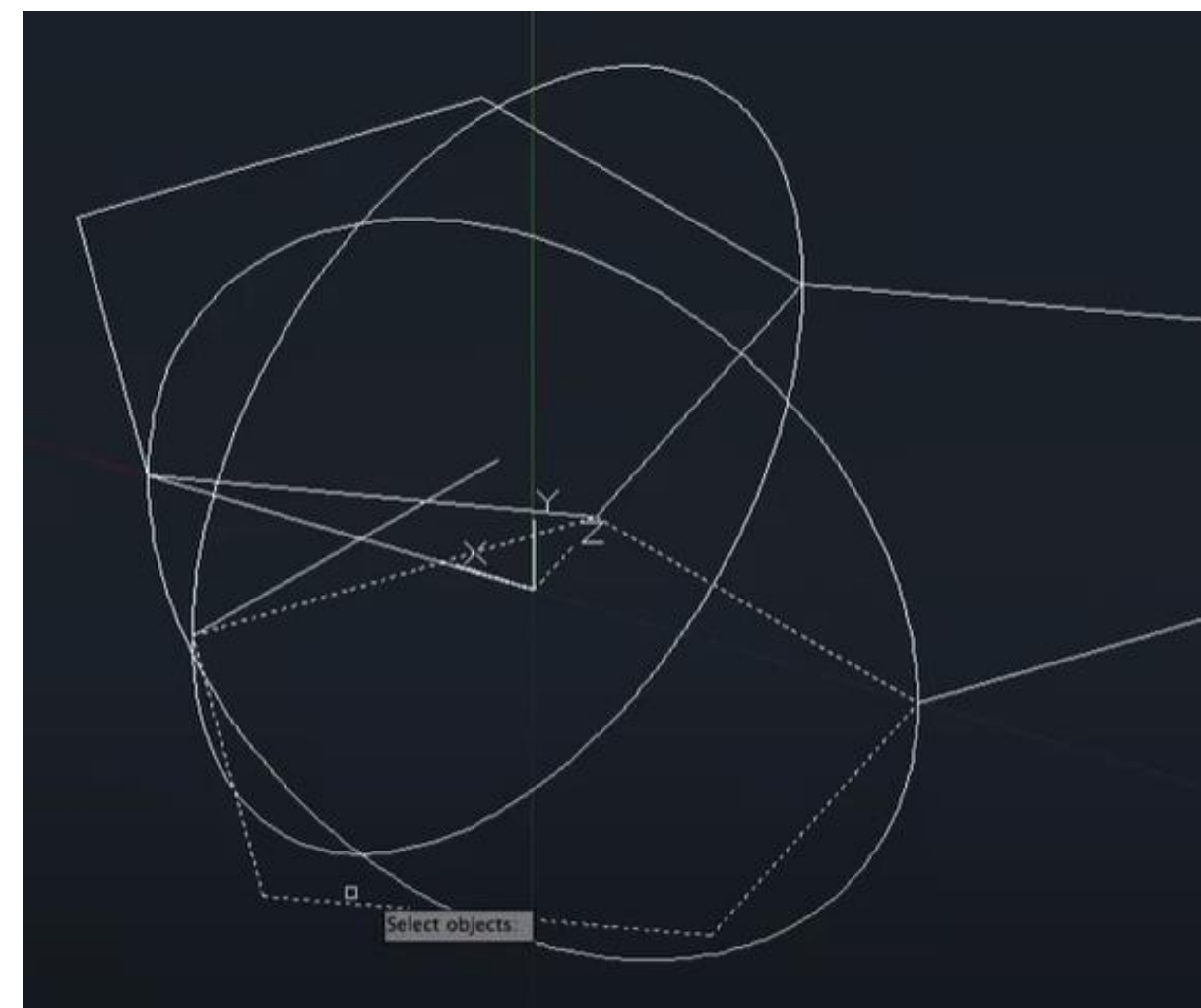


Criação de eixo de rotação e linhas auxiliares

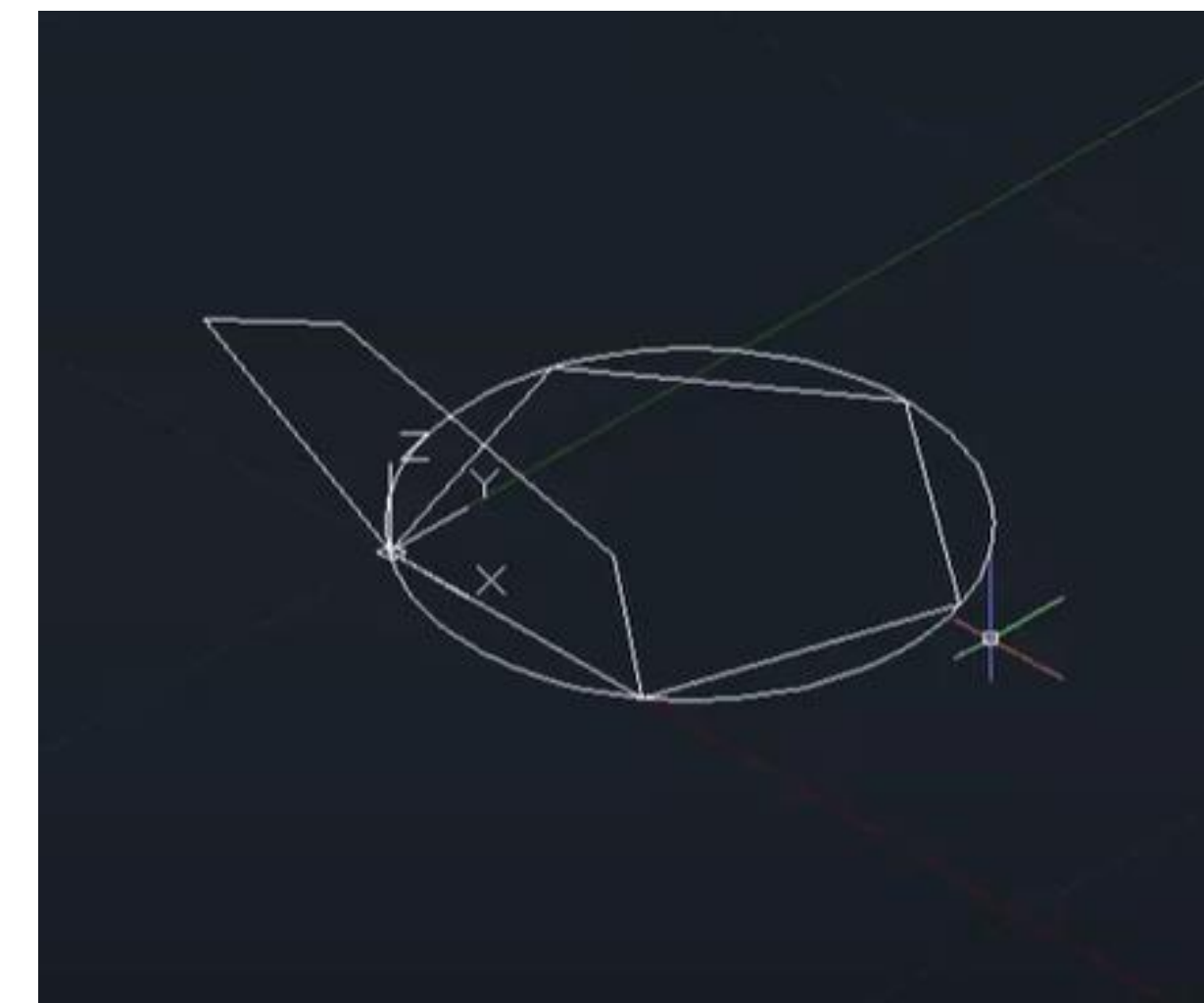
# Exerc. 2.7 - Dodecaedro



Interceção das linhas auxiliares



Alinhamento/Rotação do pentágono

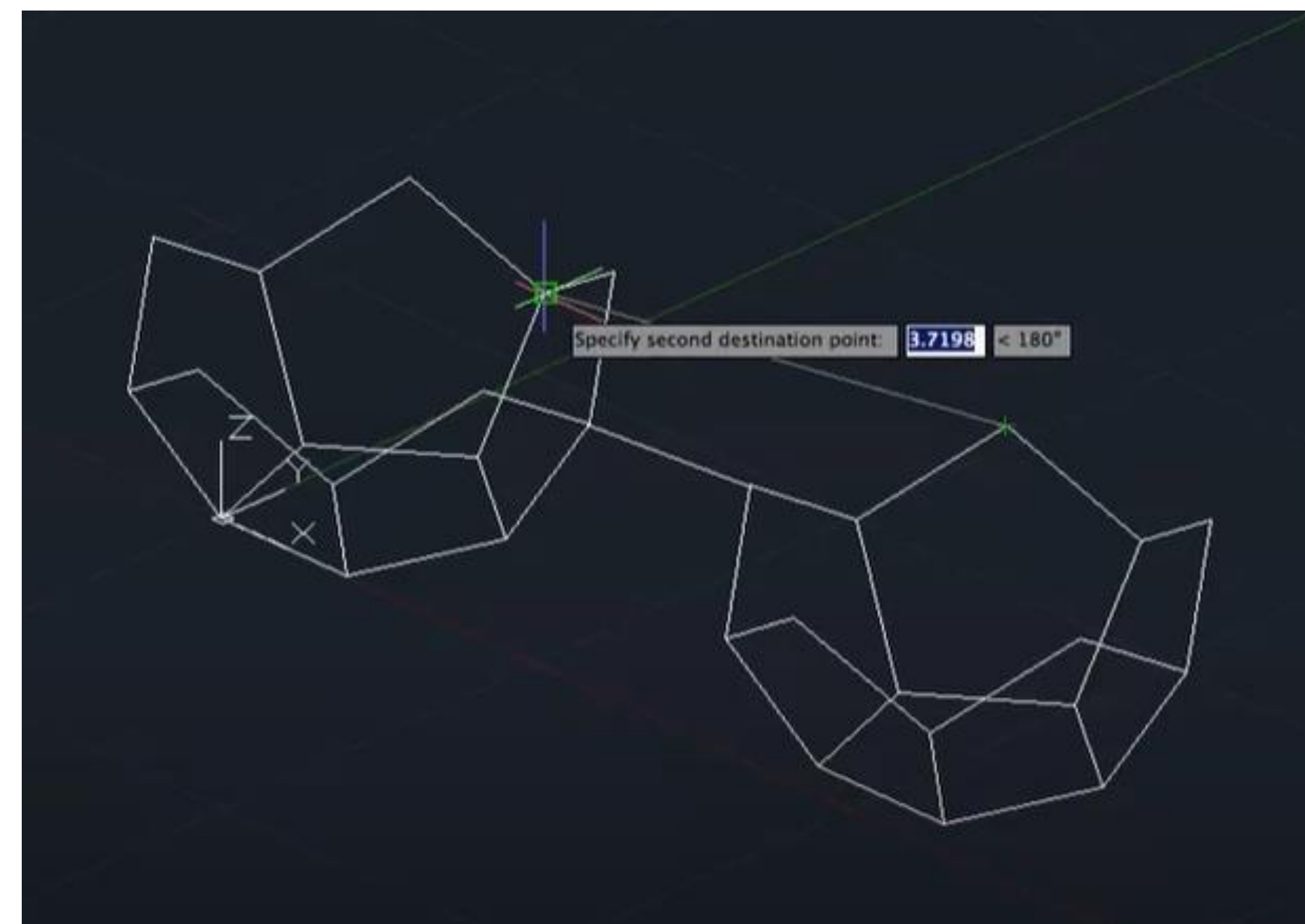


Criação de um dos lados do dodecaedro

# Exerc. 2.7 - Dodecaedro

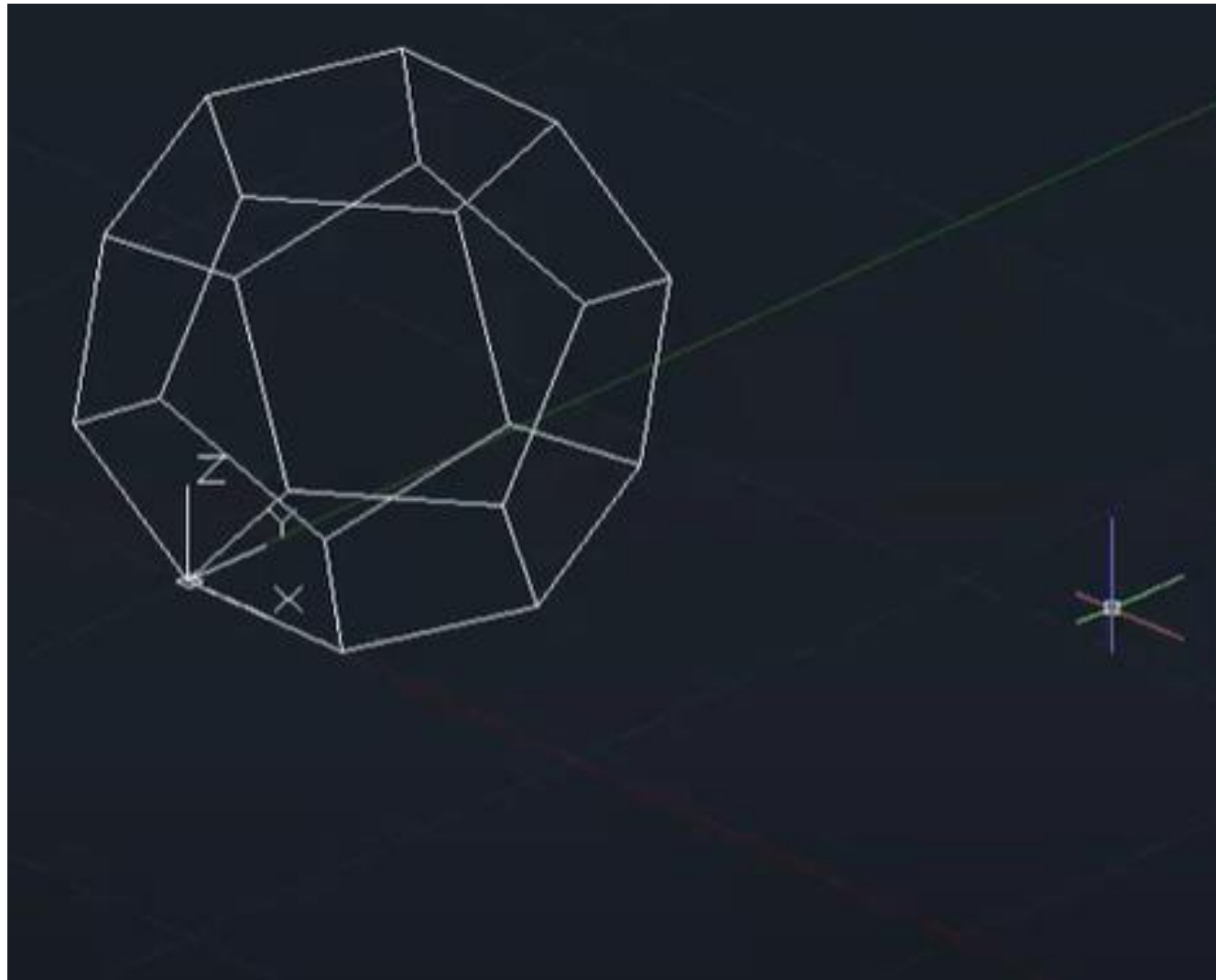


Criação da metade do dodecaedro através do comando *Array*

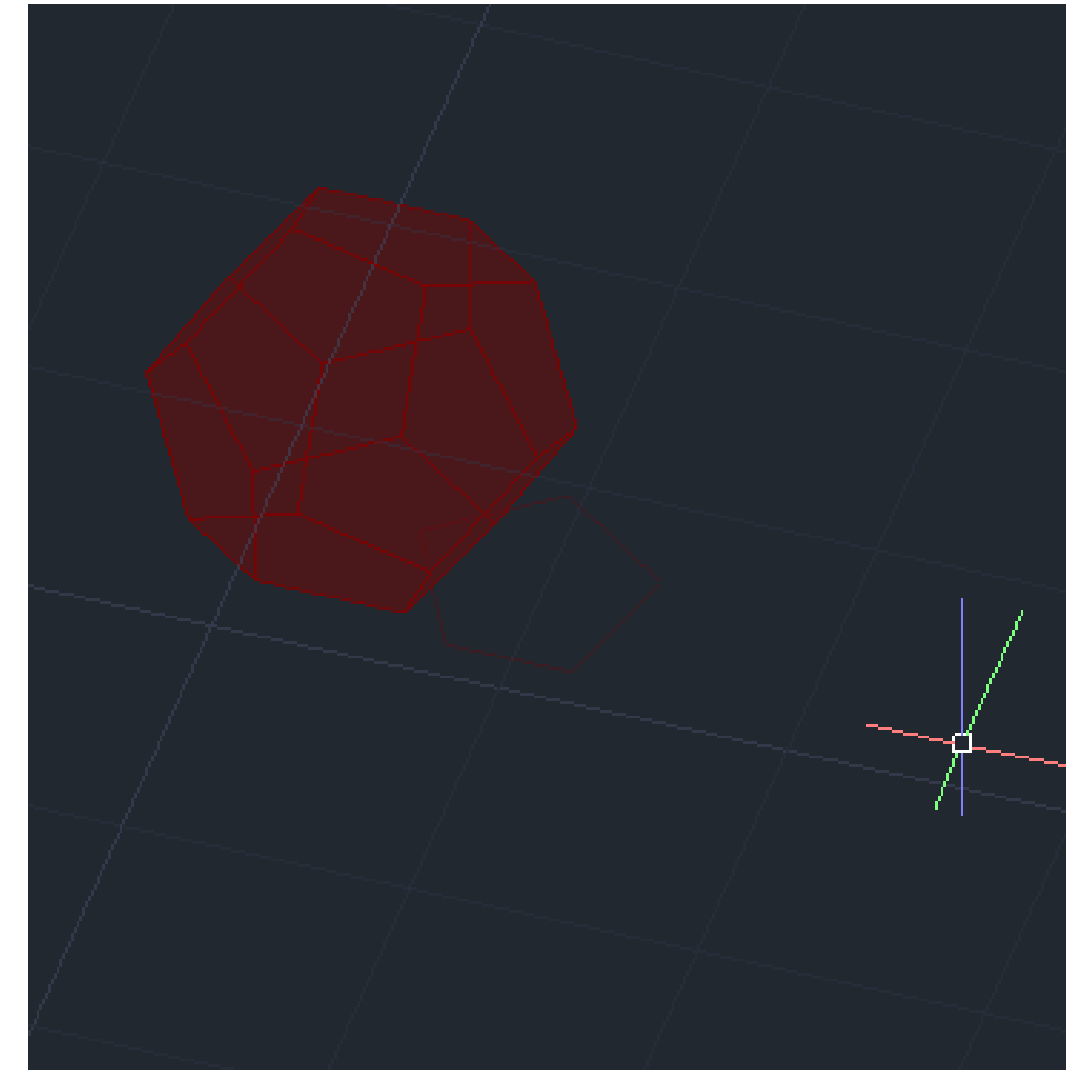


Cópia e alinhamento das duas metades pelo comando *Align*

## Exerc. 2.7 - Dodecaedro

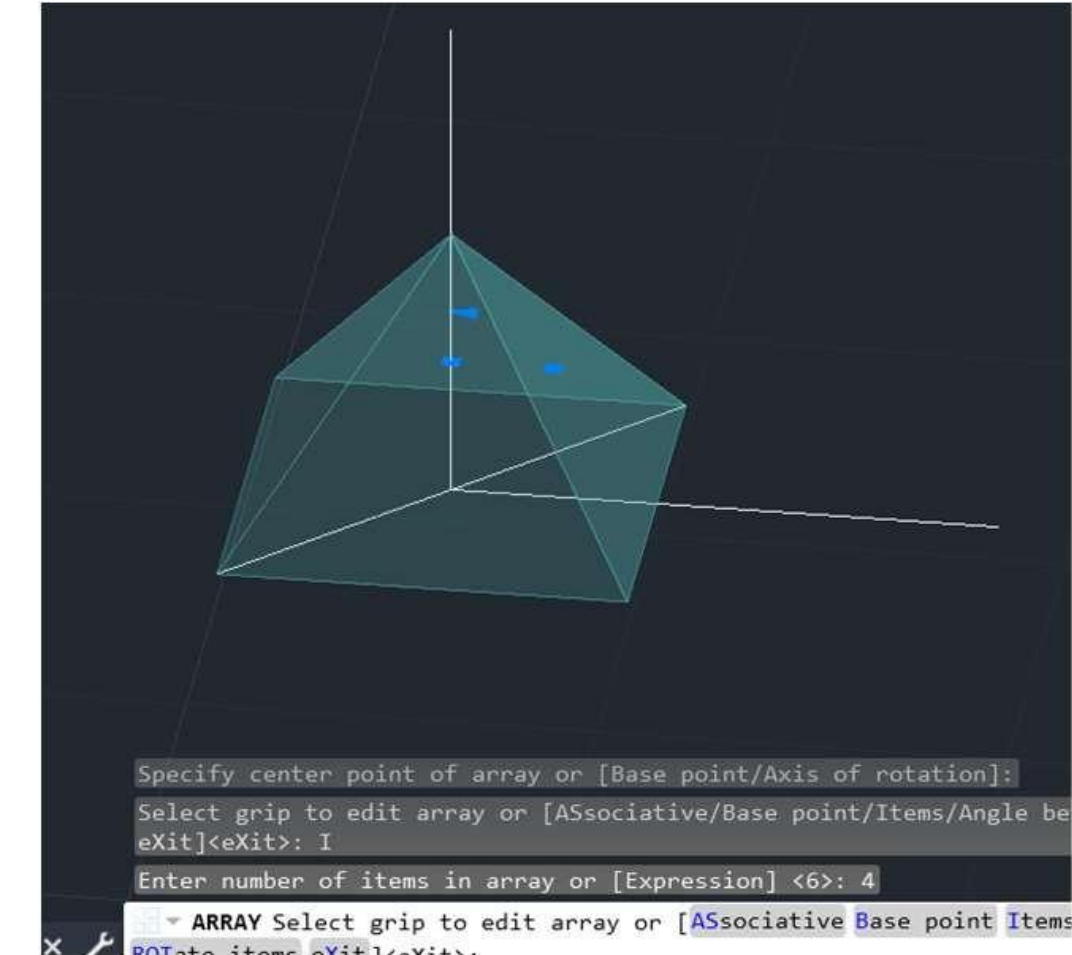
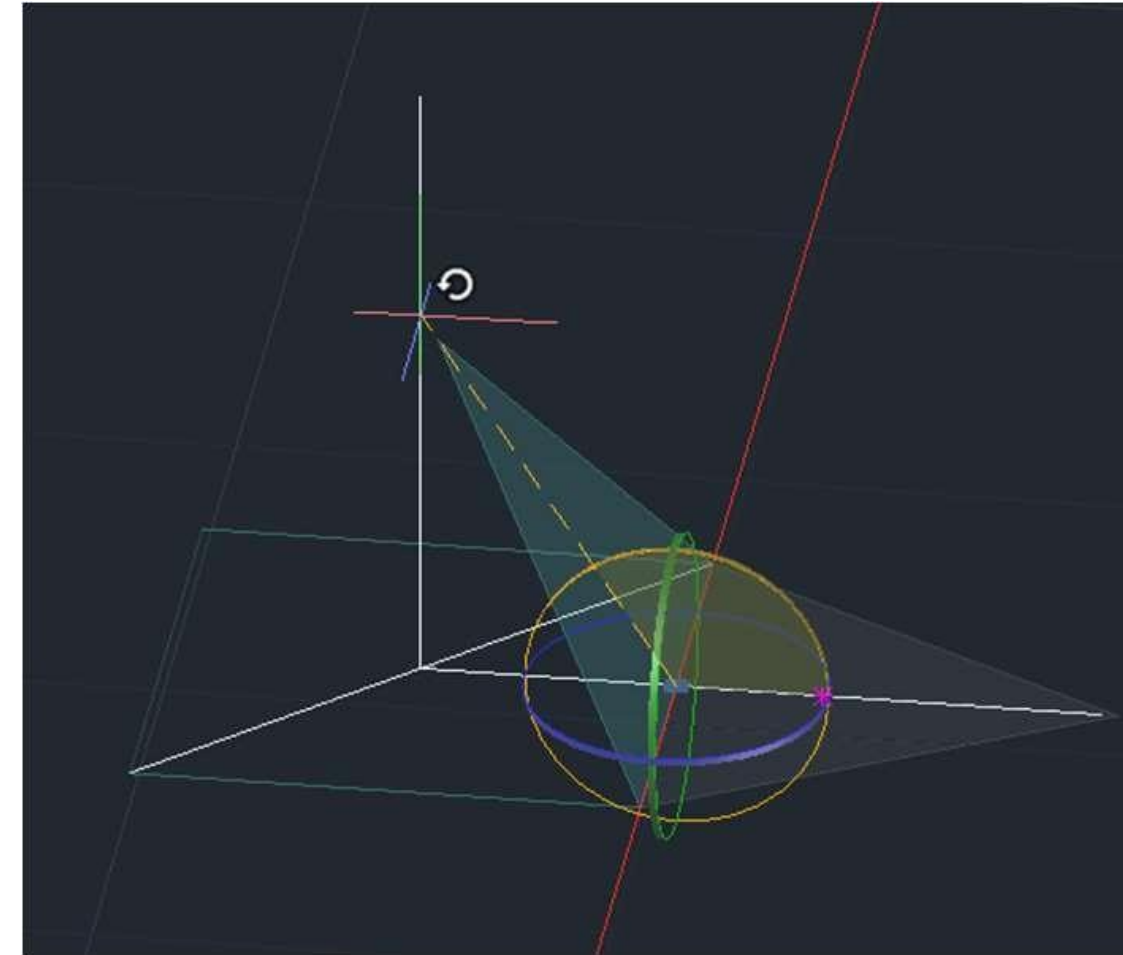
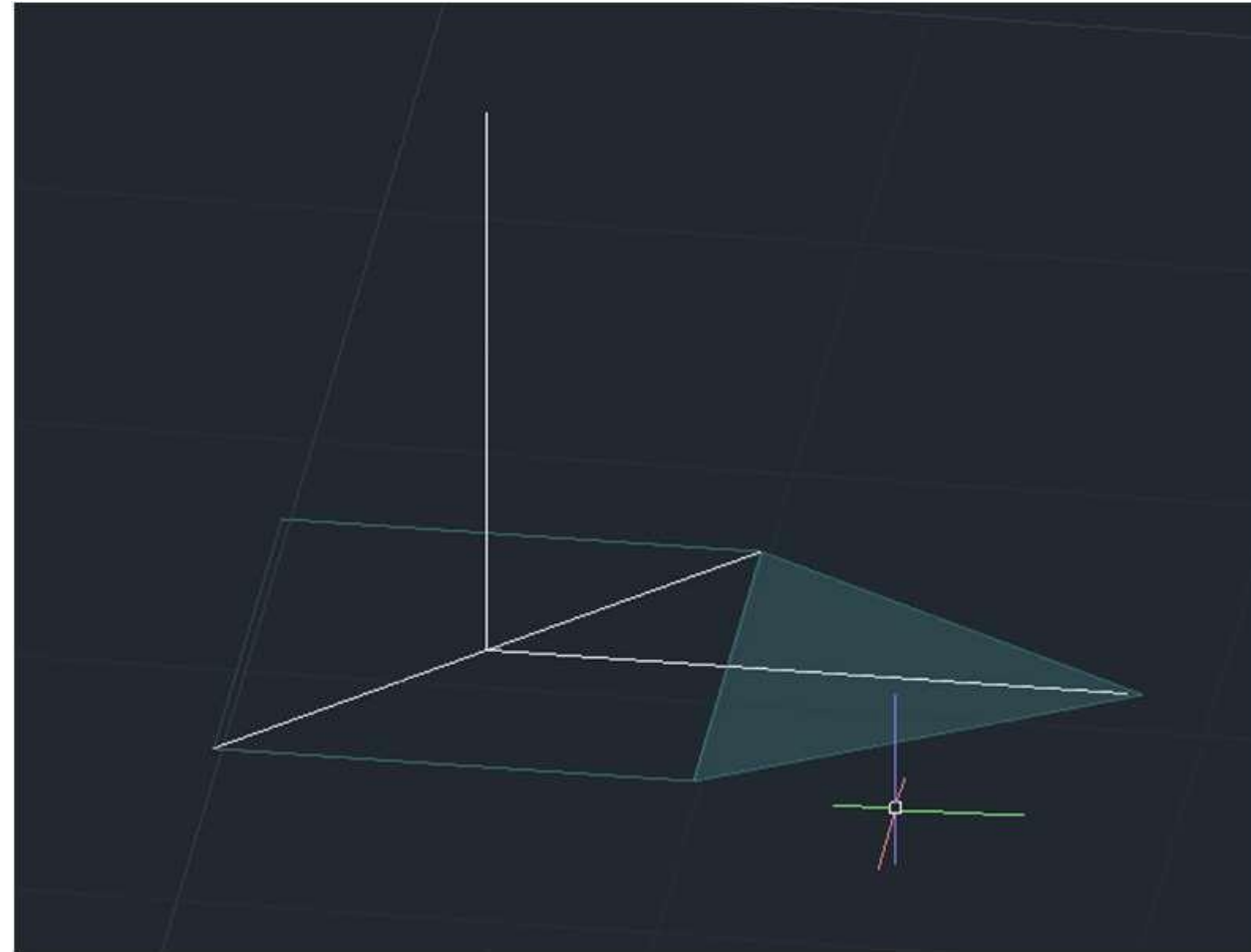


Alinhamento das duas metades

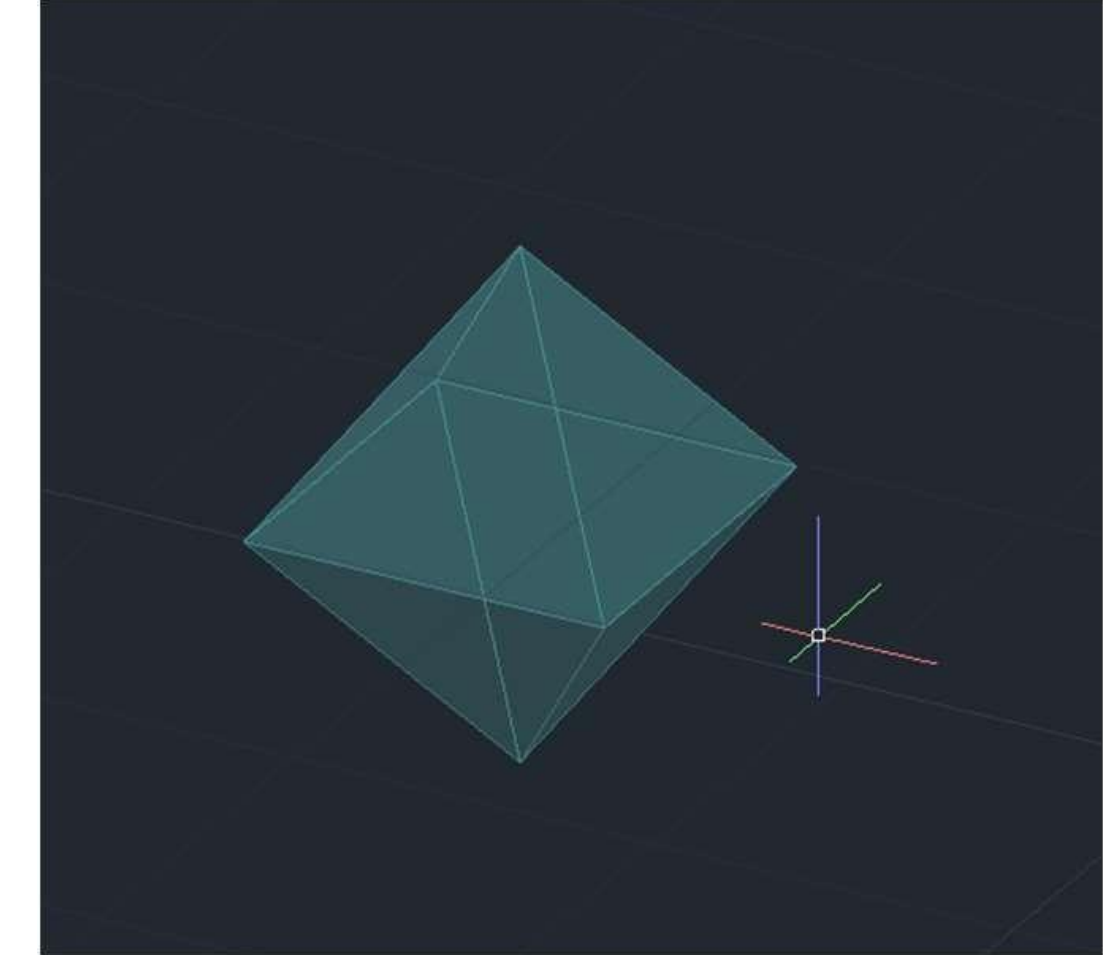
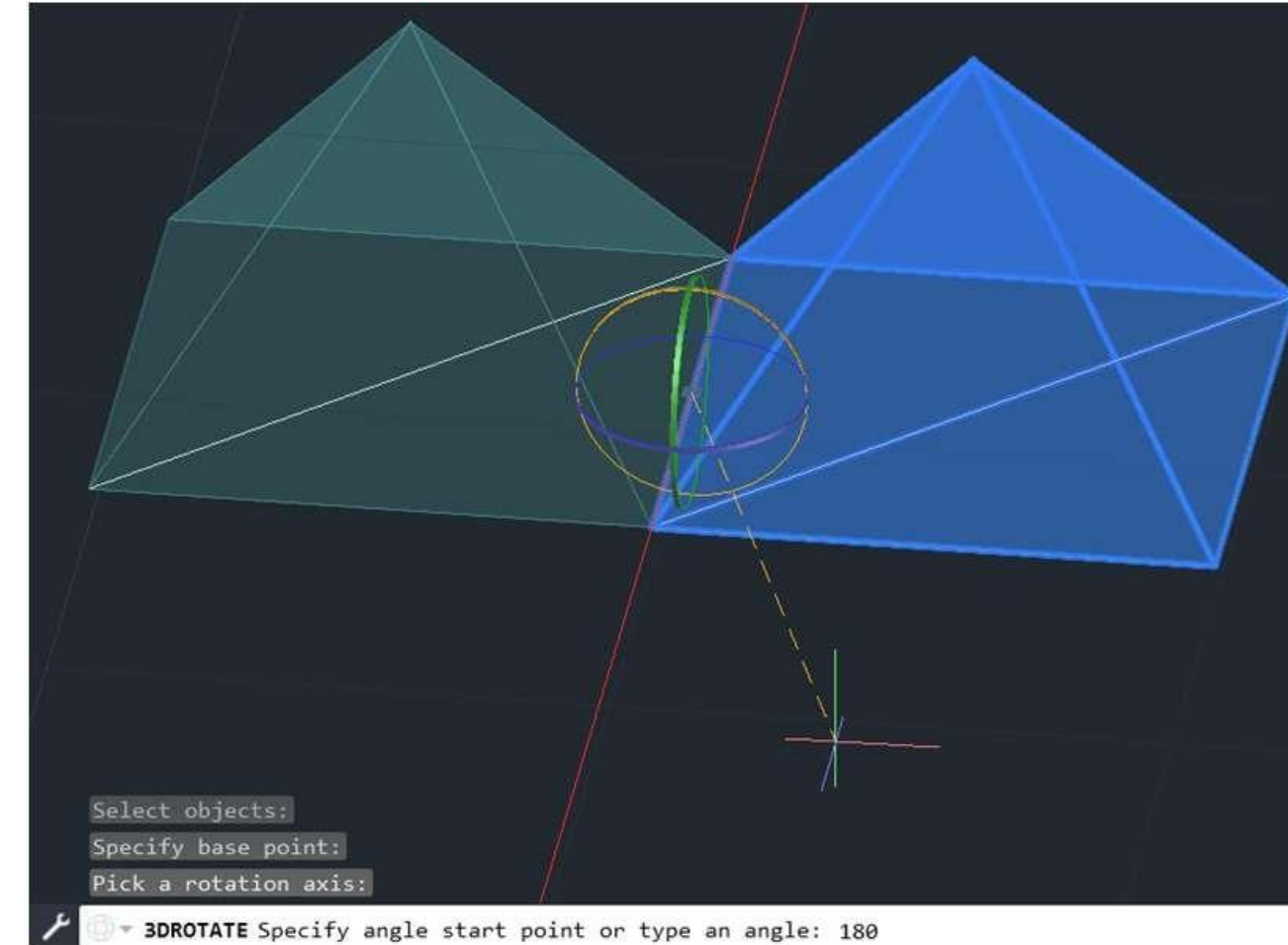
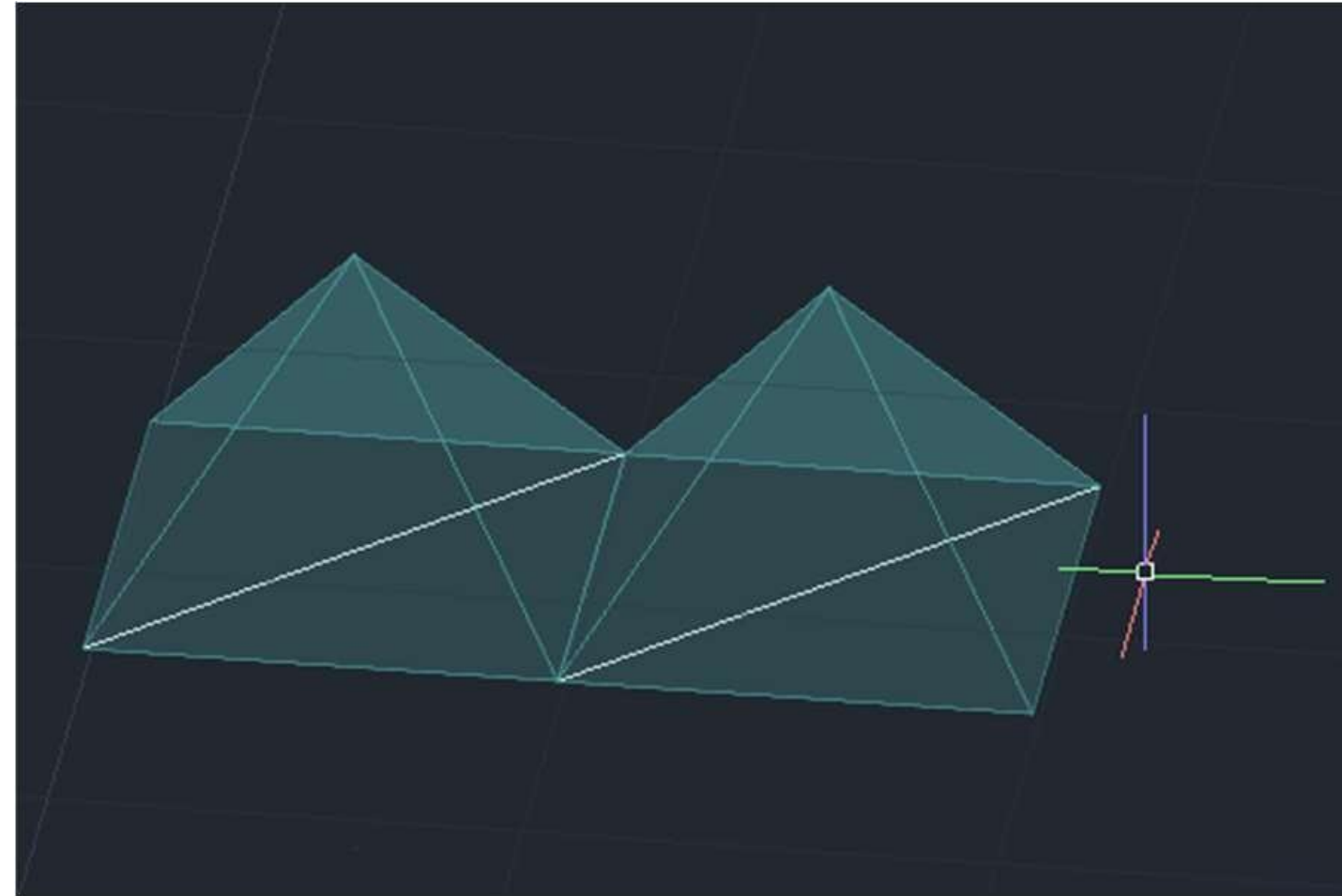


Comando *Shade*

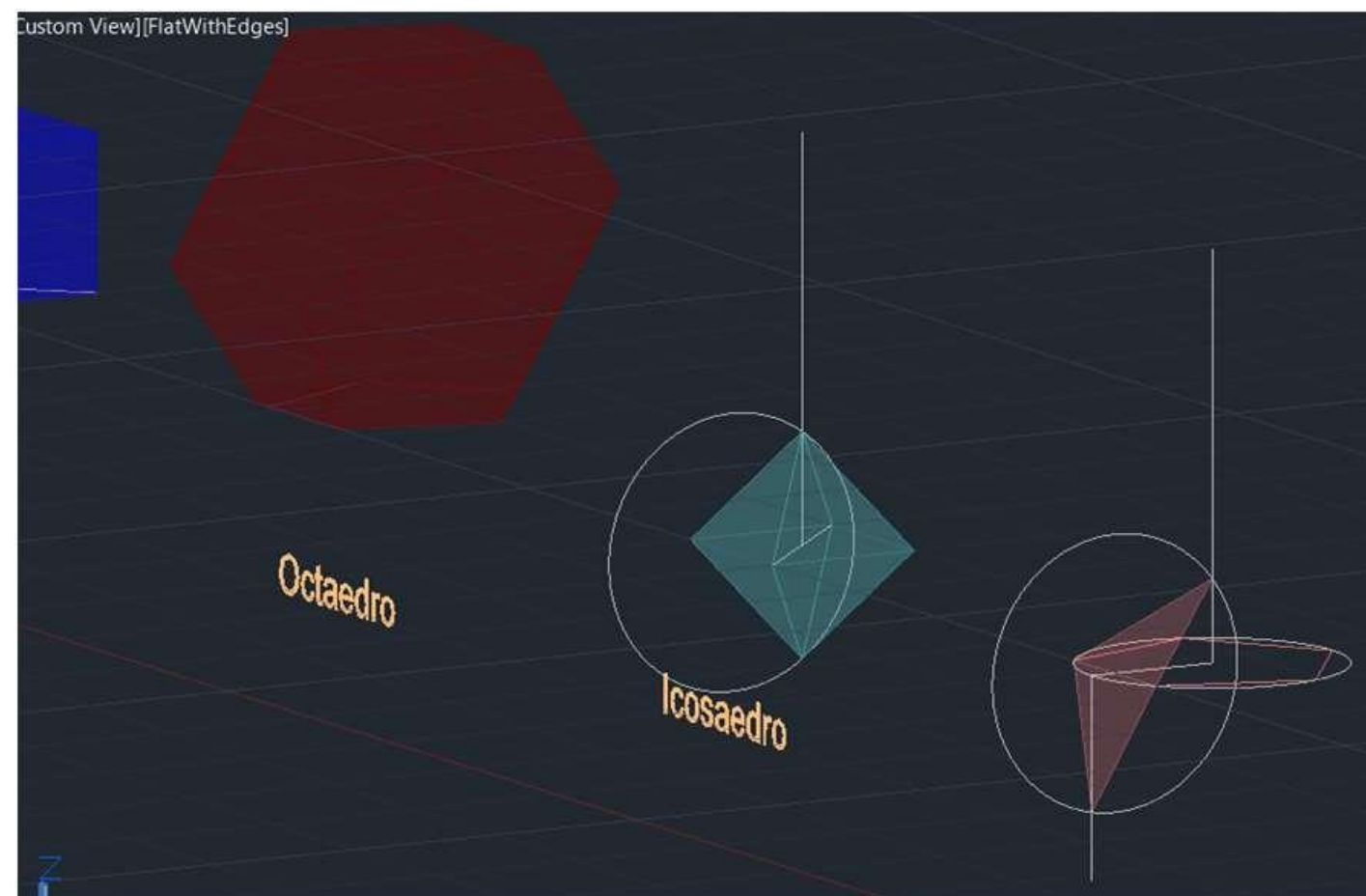
## Exerc. 2.7 - Dodecaedro



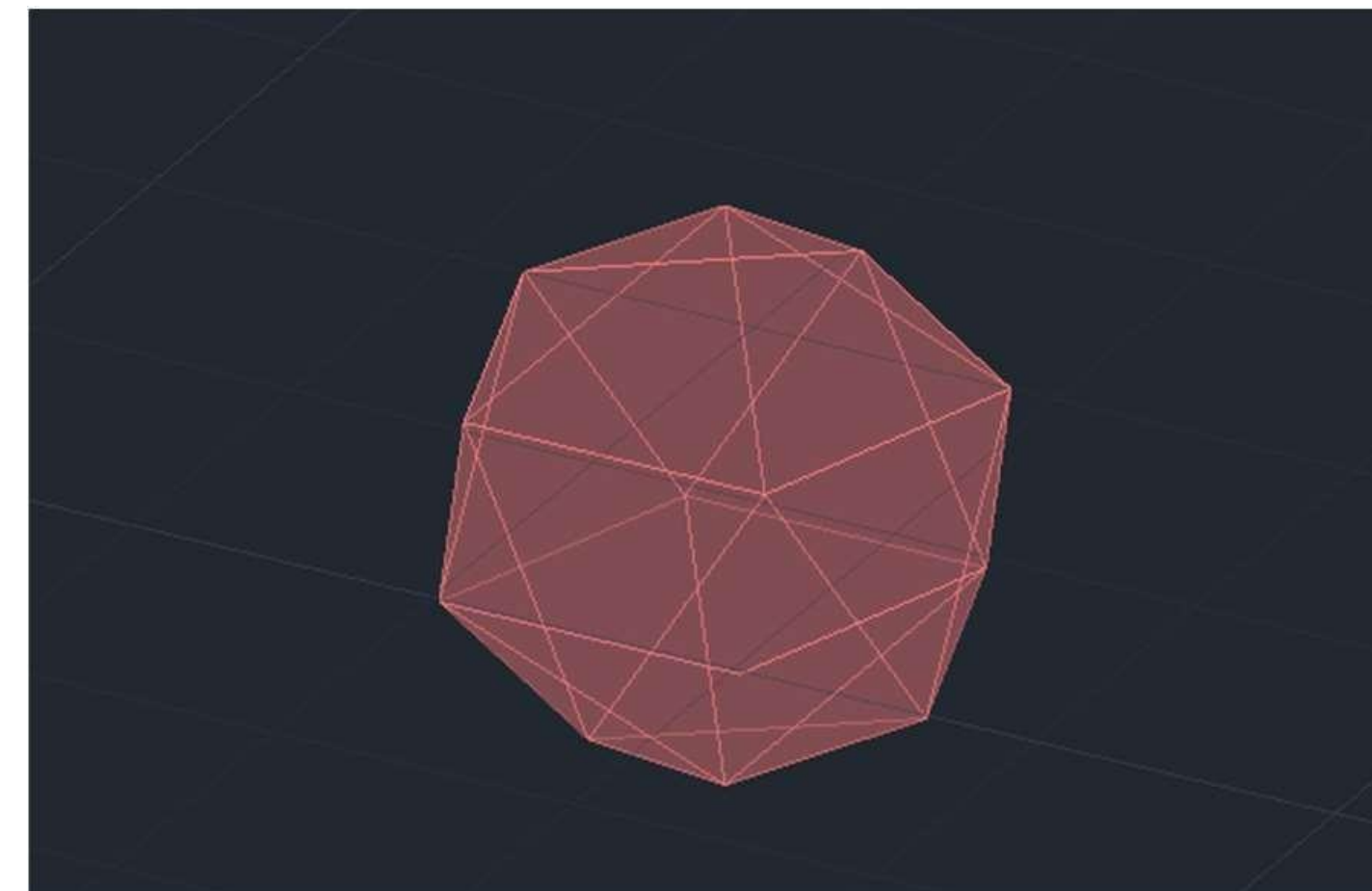
## Exerc. 2.8 - Octaedro



## Exerc. 2.8 - Octaedro

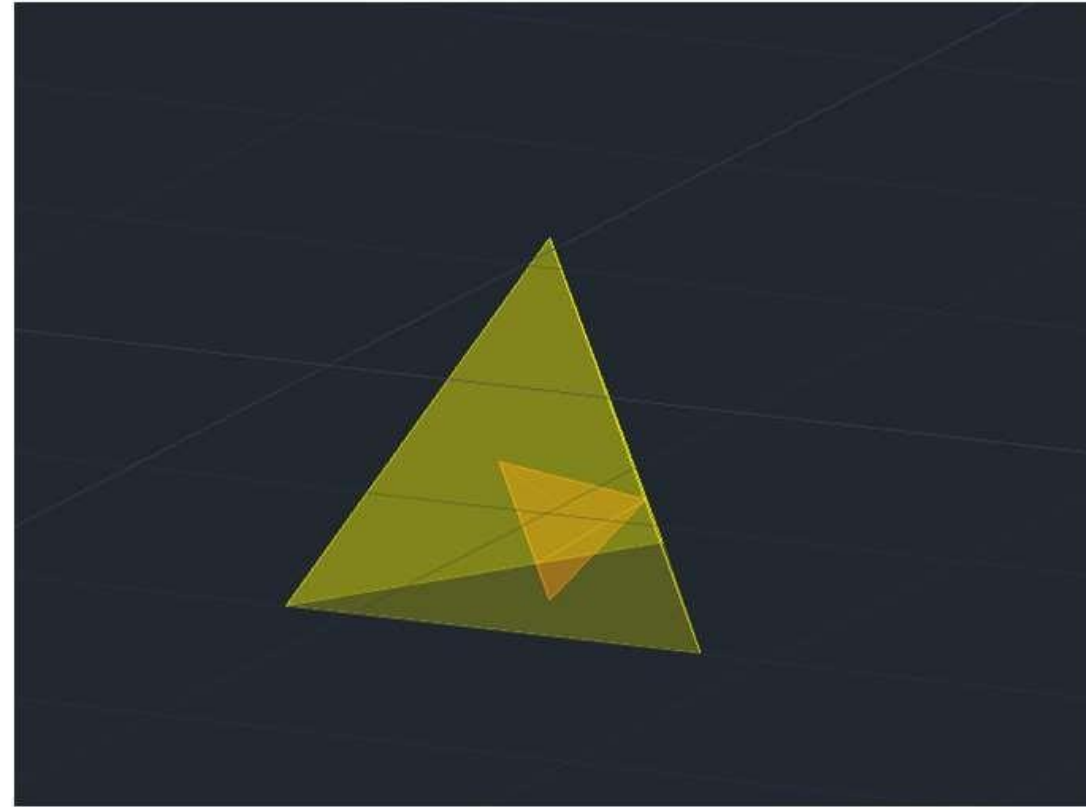


Criação de 2 lados + comando *Array* para ter metade do sólido

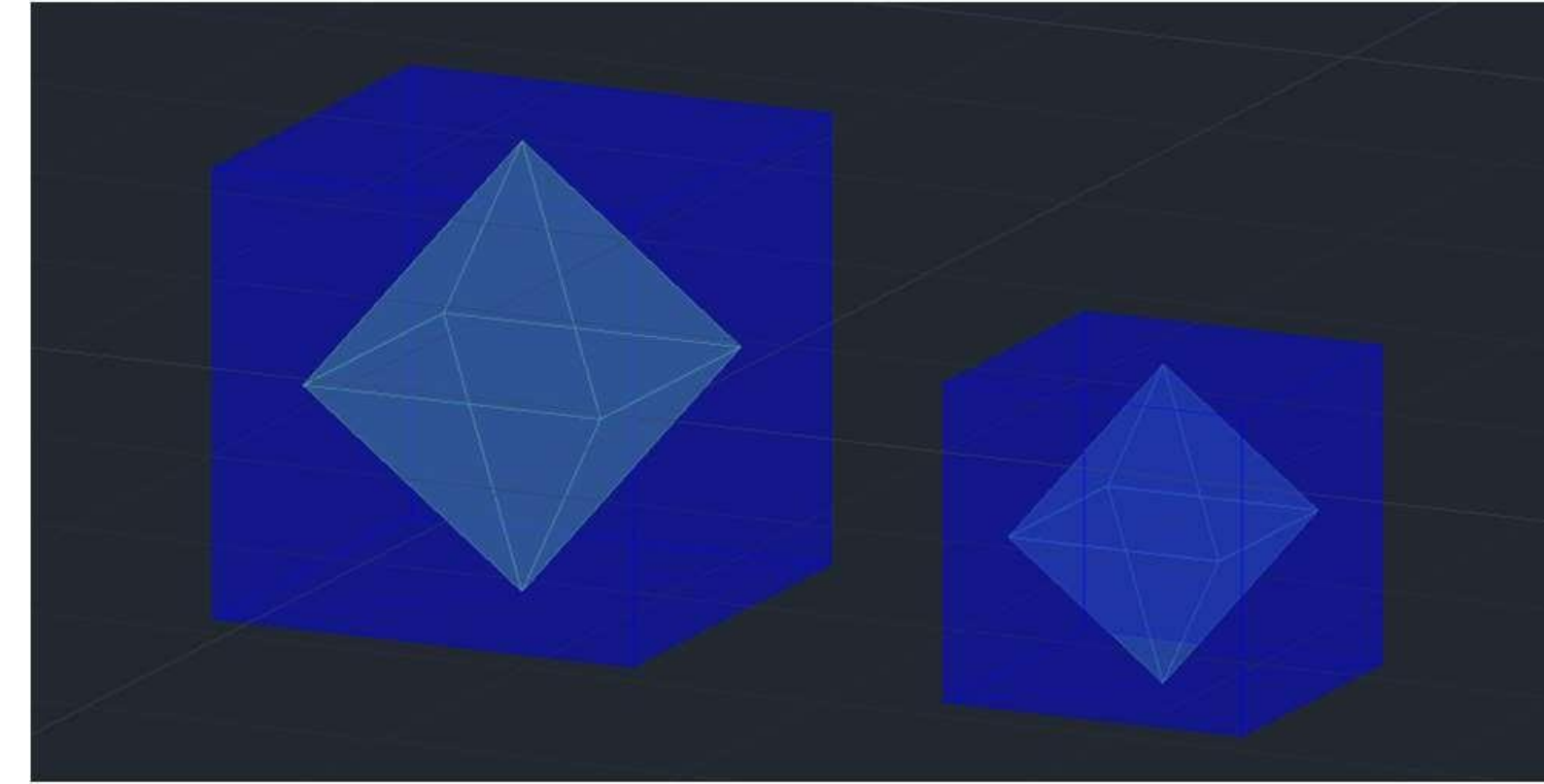


Cópia da parte superior e rotação para a parte de baixo para ter o sólido completo

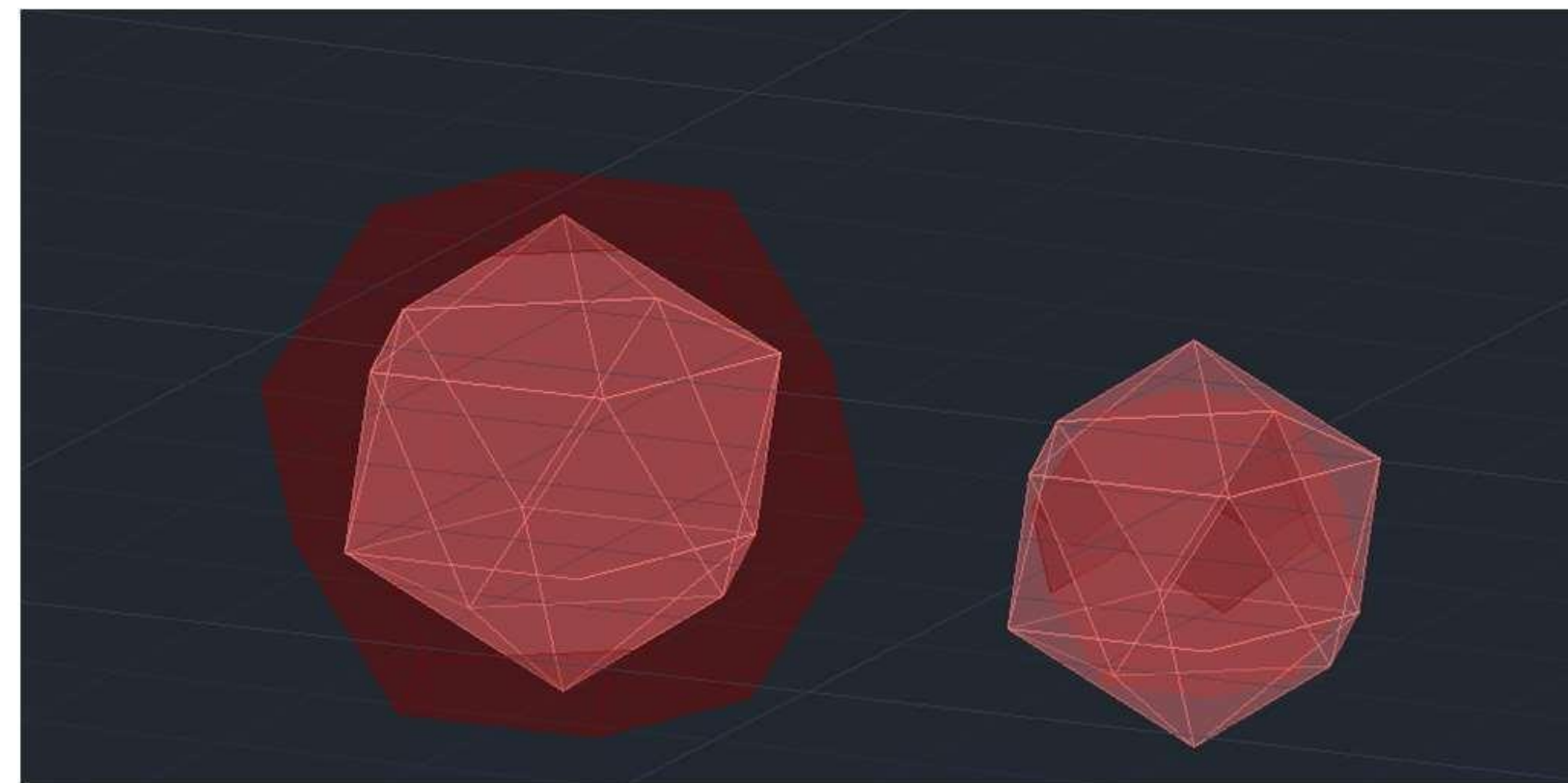
## Exerc. 2.9 - Icosaedro



Tetraedros

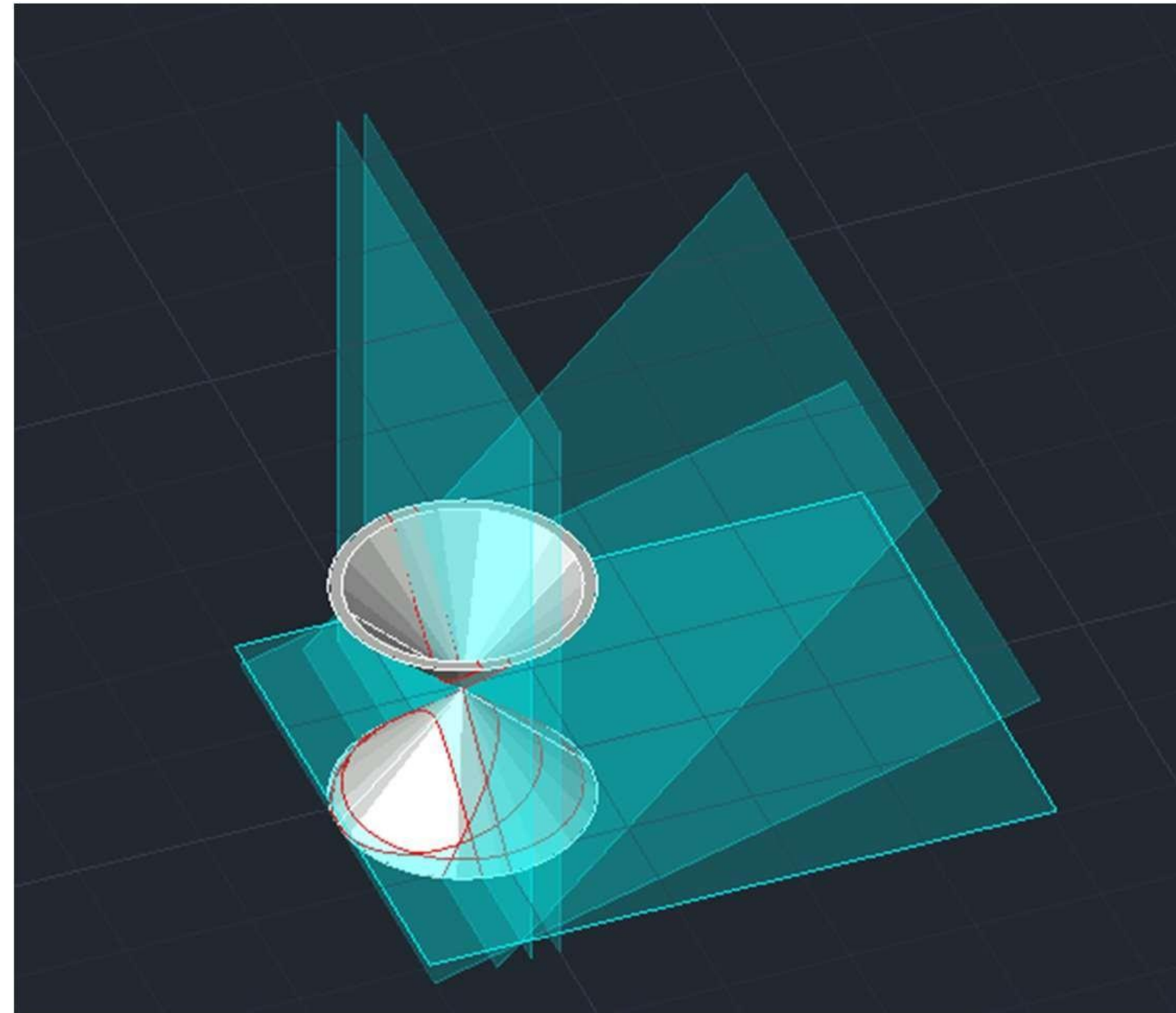


Hexaedro + Octaedro



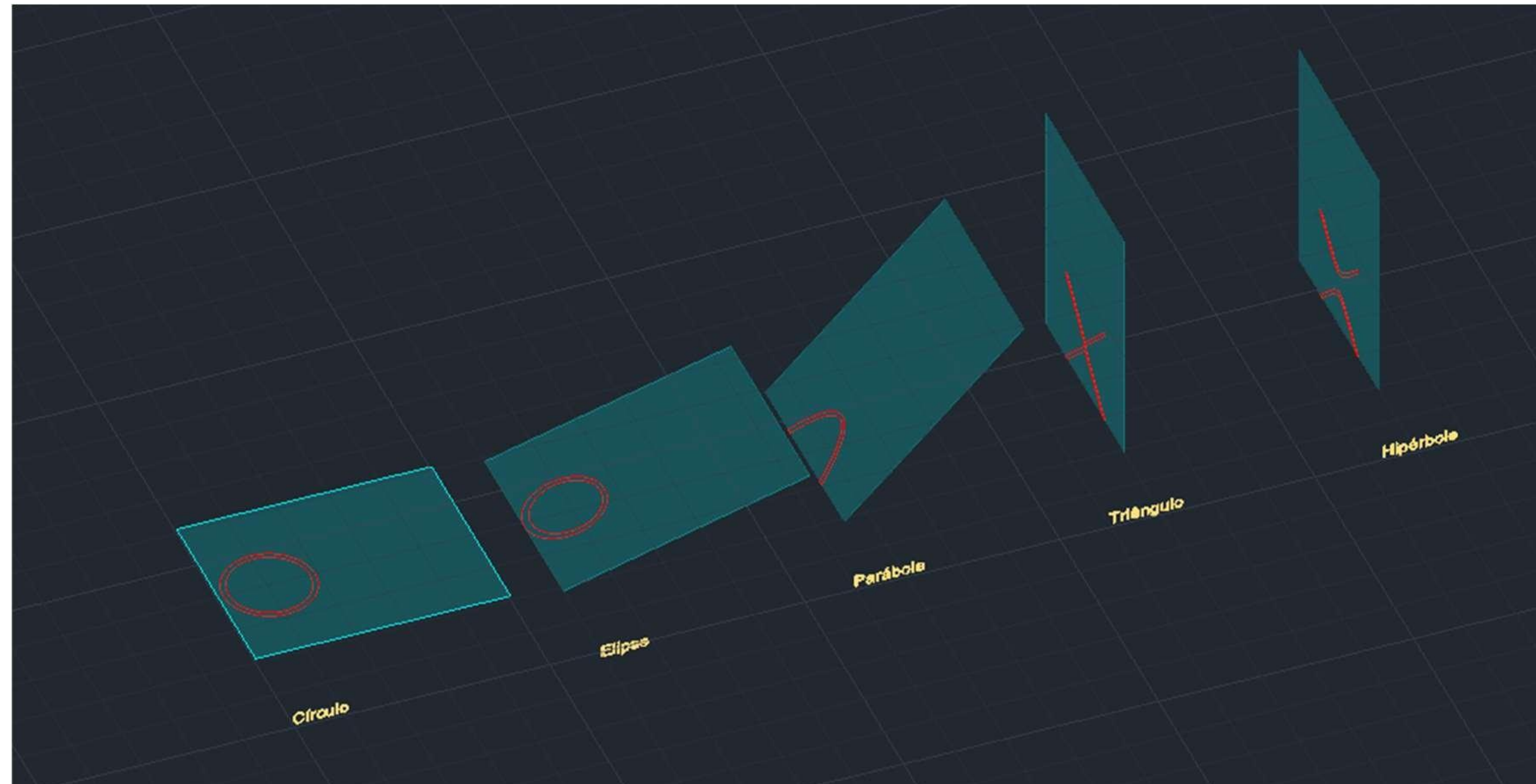
Dodecaedro + Icosaedro

Exerc. 3 – Interduais – Comando *Array*



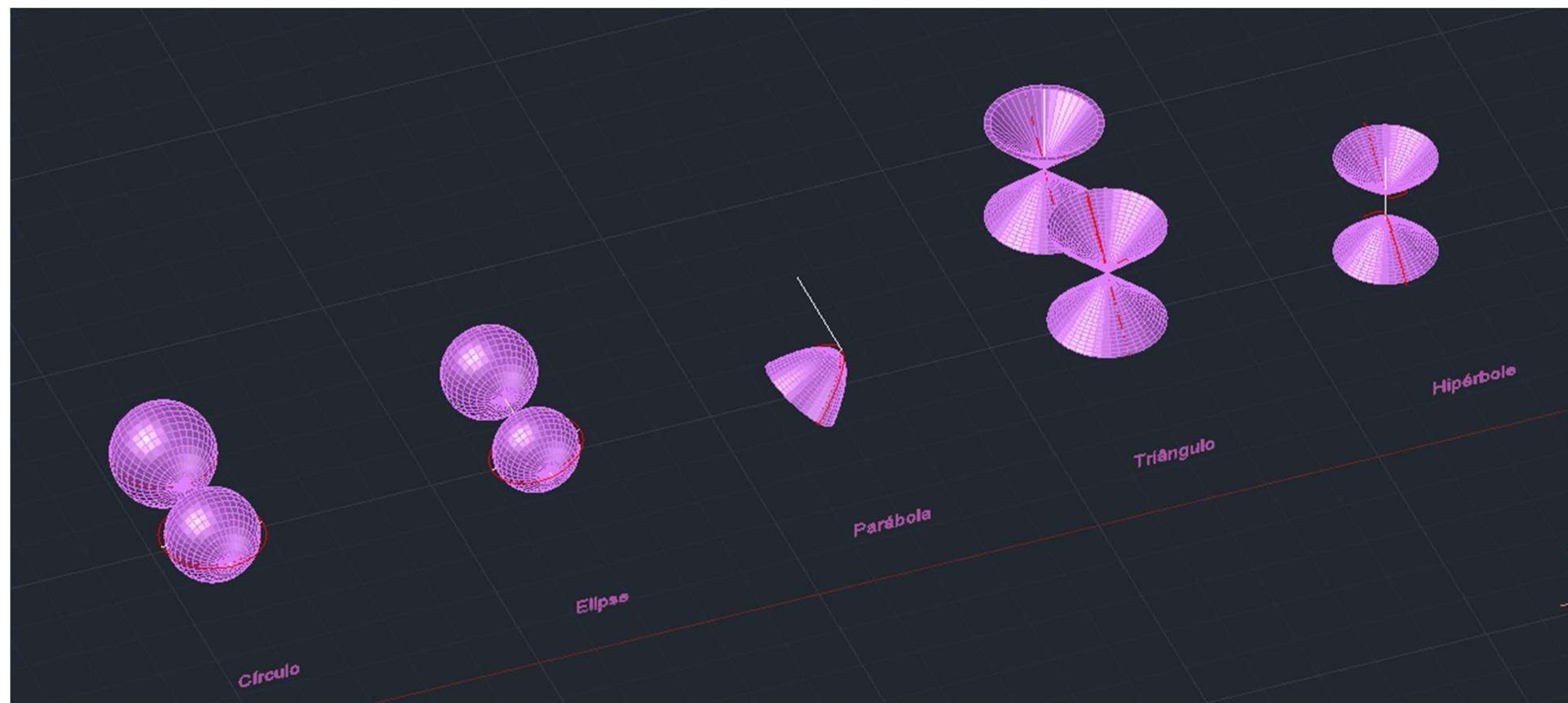
5 secções diferentes no hourglass

## Exerc. 4 - Interseções



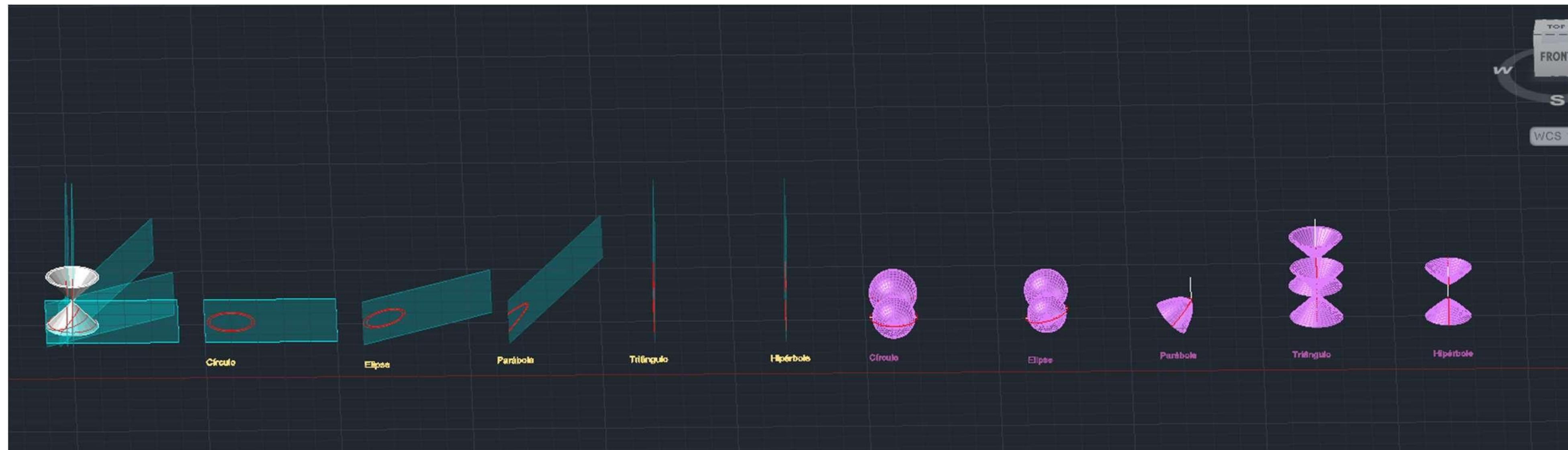
Separação dos planos secantes e suas respectivas secções

## Exerc. 4 - Interseções



Criação de sólidos a partir das secções resultantes, através do comando *RevSurf*

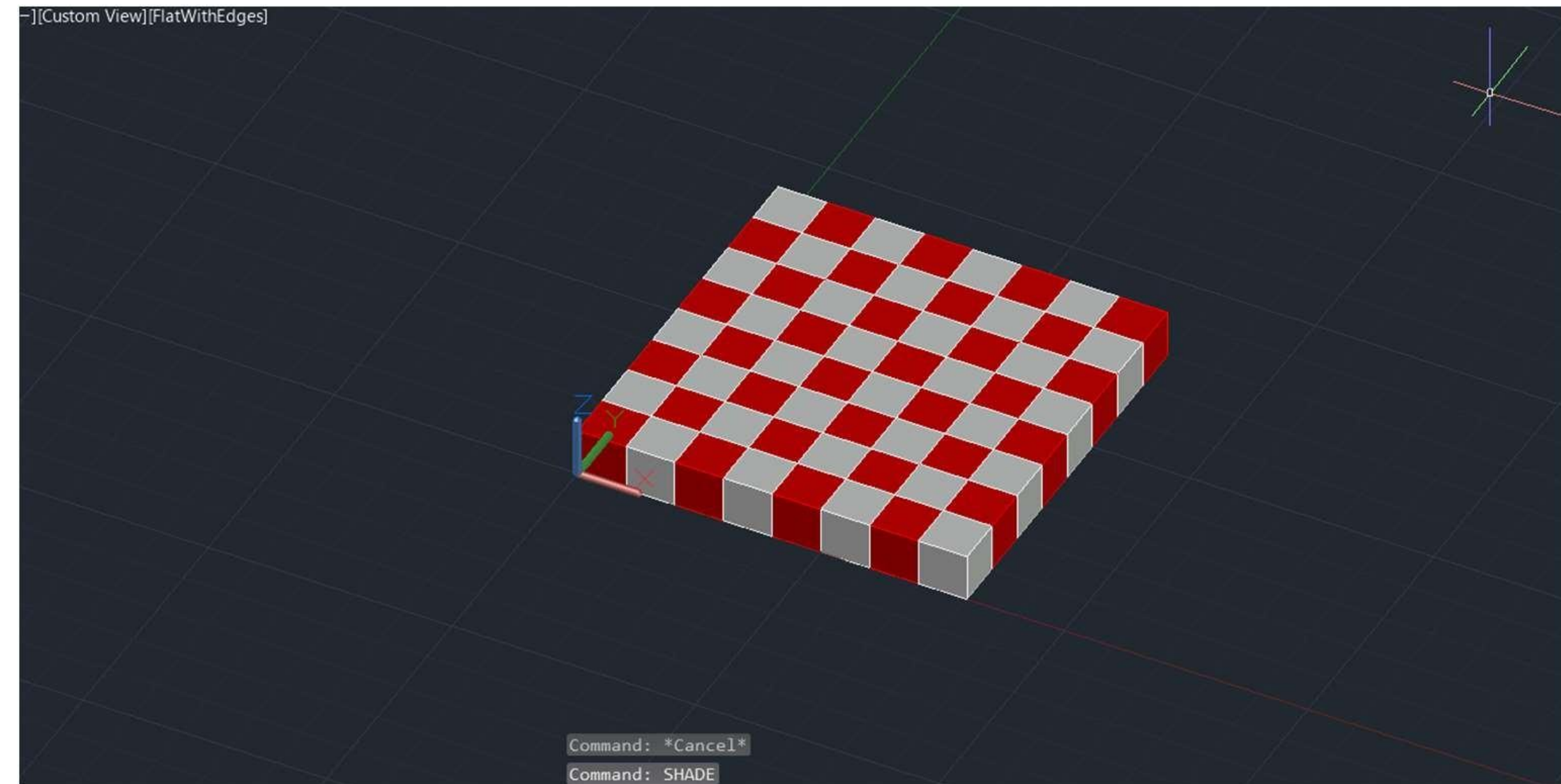
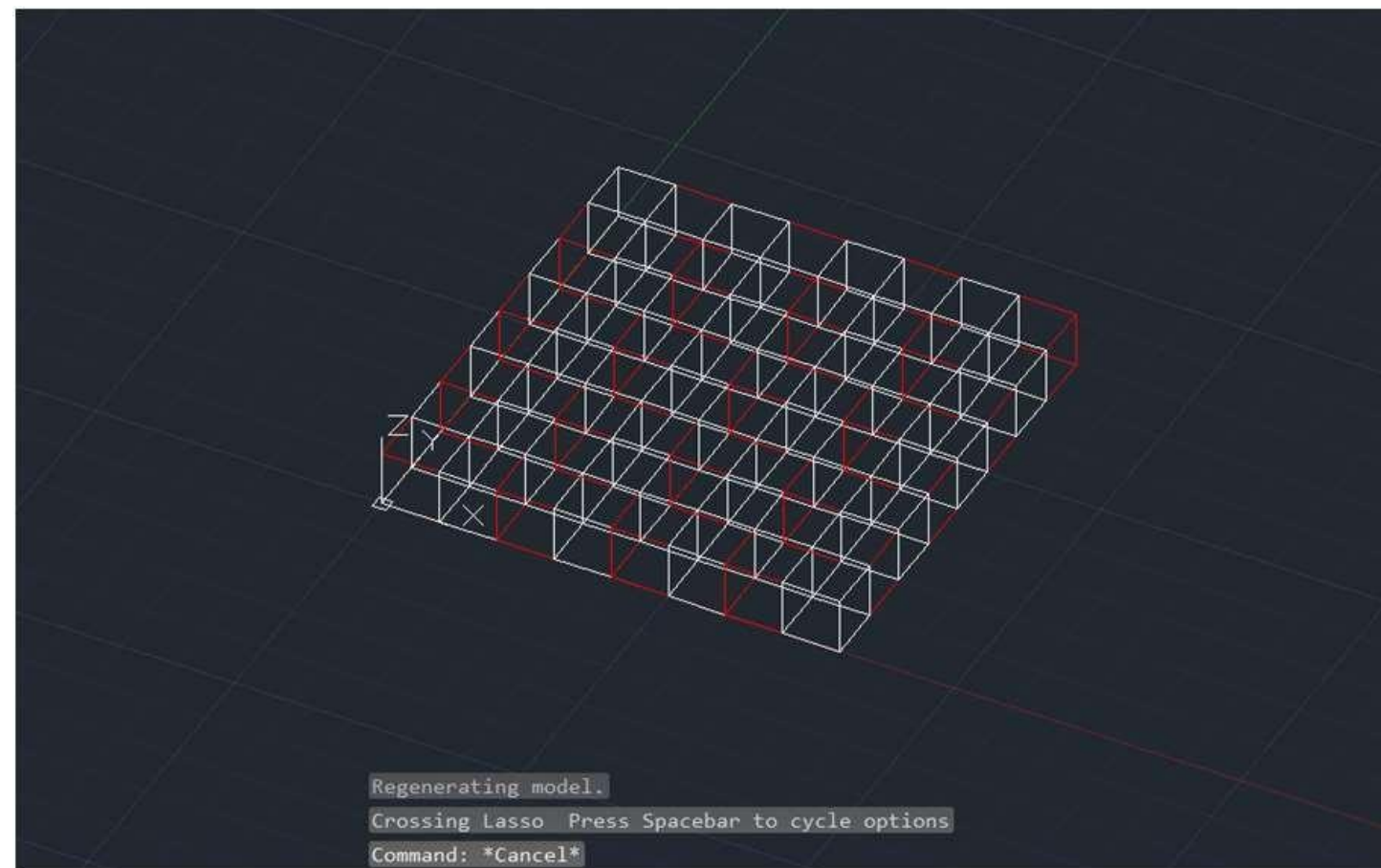
## Exerc. 4 - Interseções



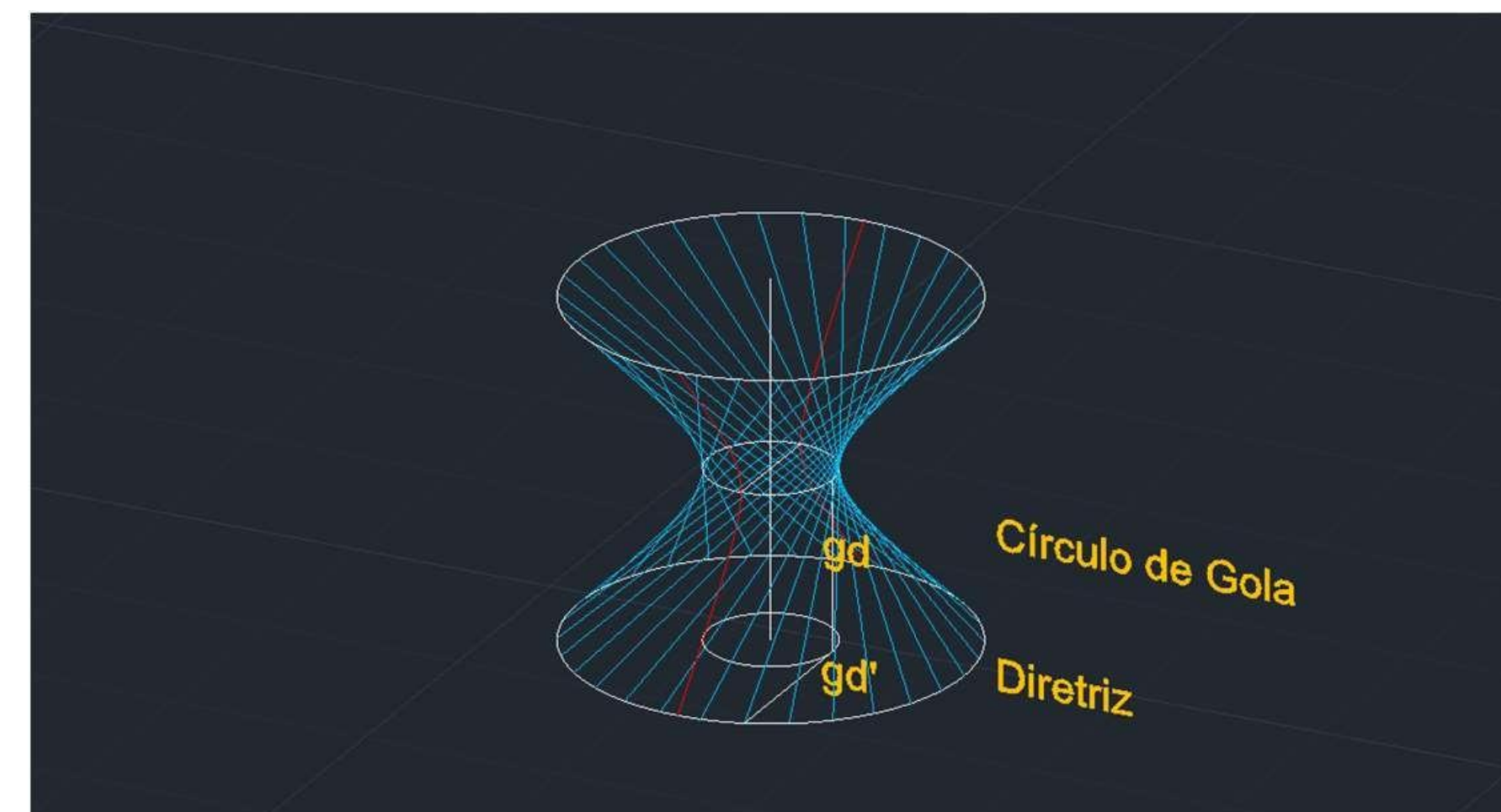
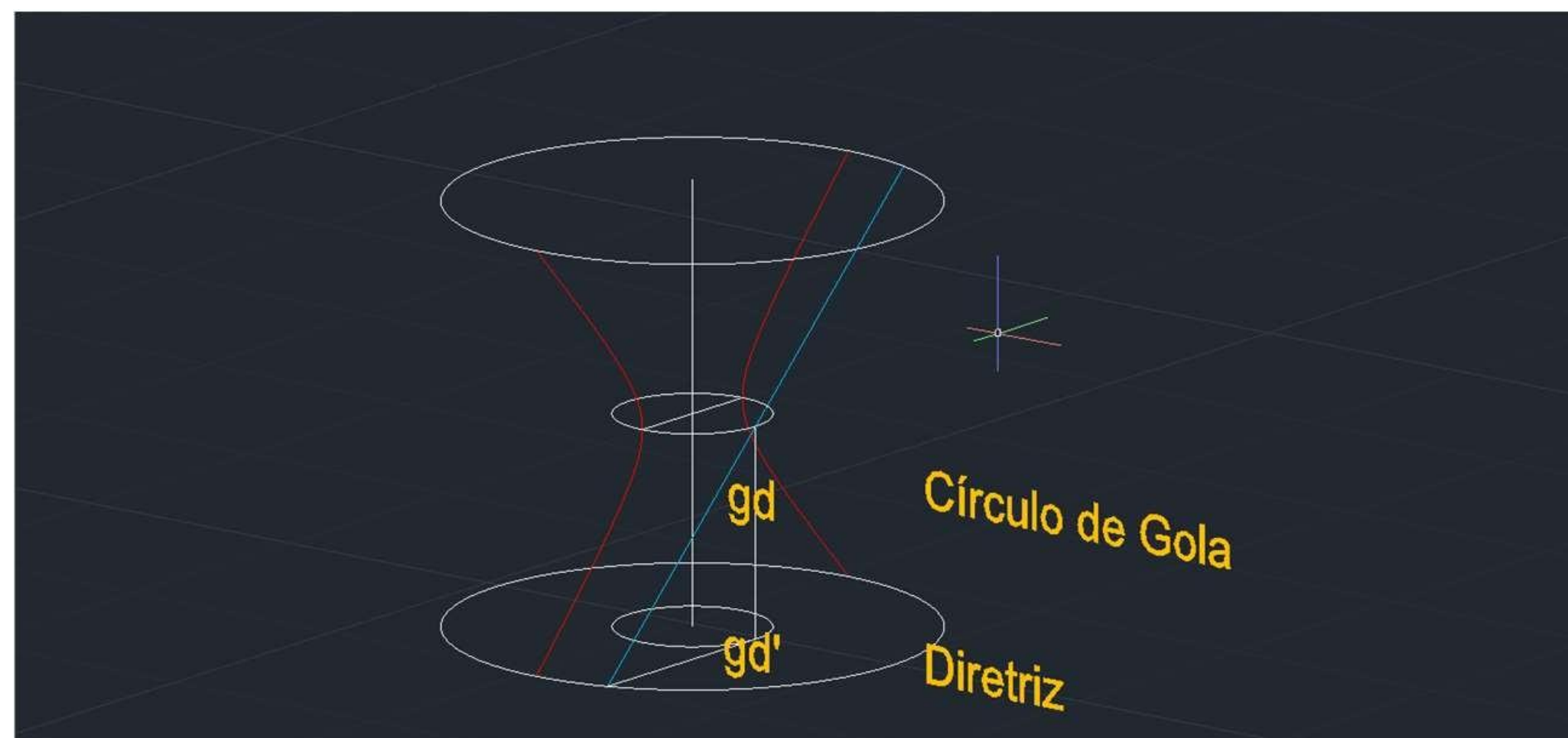
## Exerc. 4 - Interseções

```
(Defun c:Xad ()
```

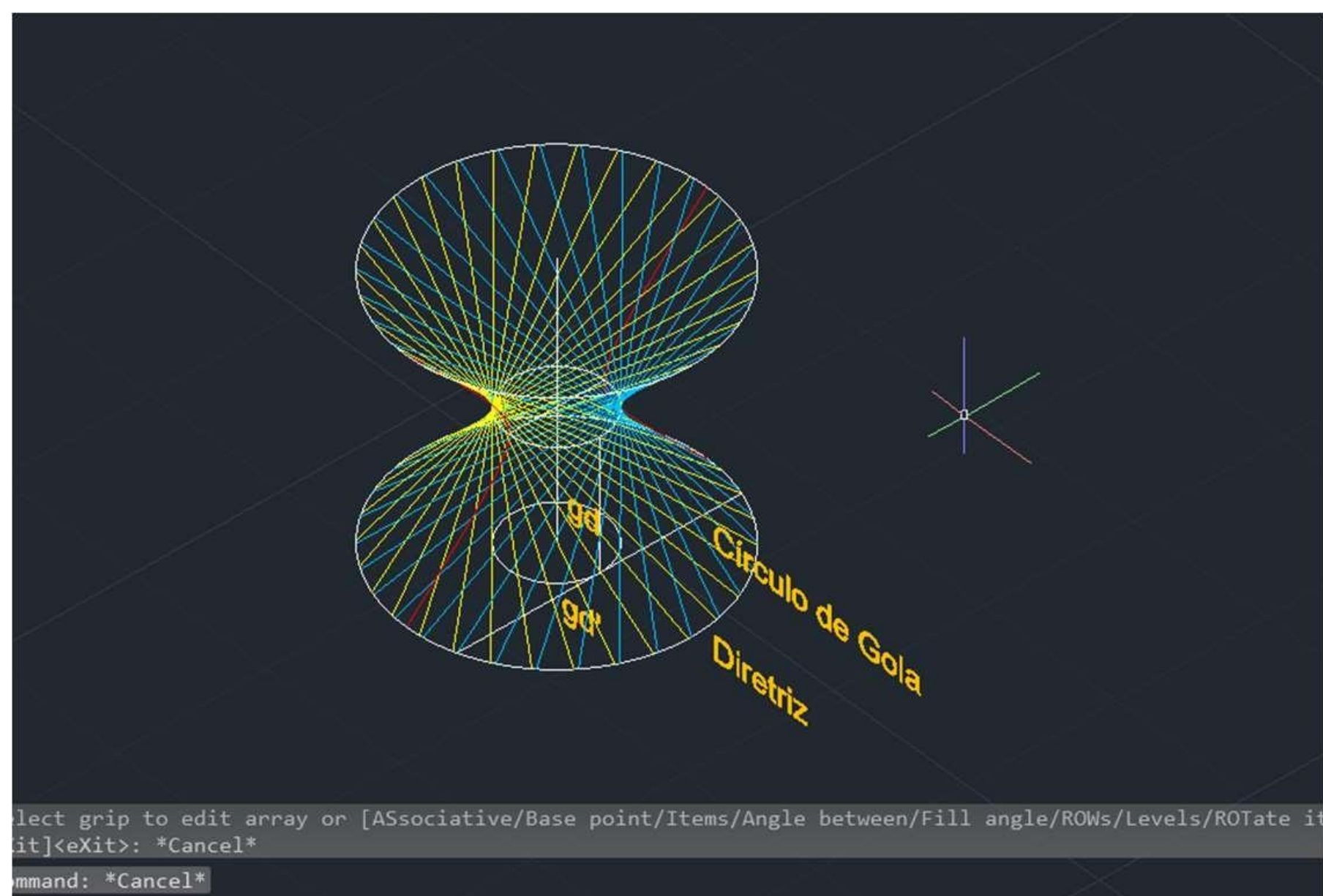
```
  (command "box" "0,0,0" "10,10,10")  
  (command "copy" "last" "" "0,0" "10,10")  
  (command "mirror" "all" "" "10,0" "10,10" "")  
  (command "chprop" "previous" "" "c" "1" "")  
  (command "array" "all" "" "R" "4" "4" "20" "20" "")  
)
```



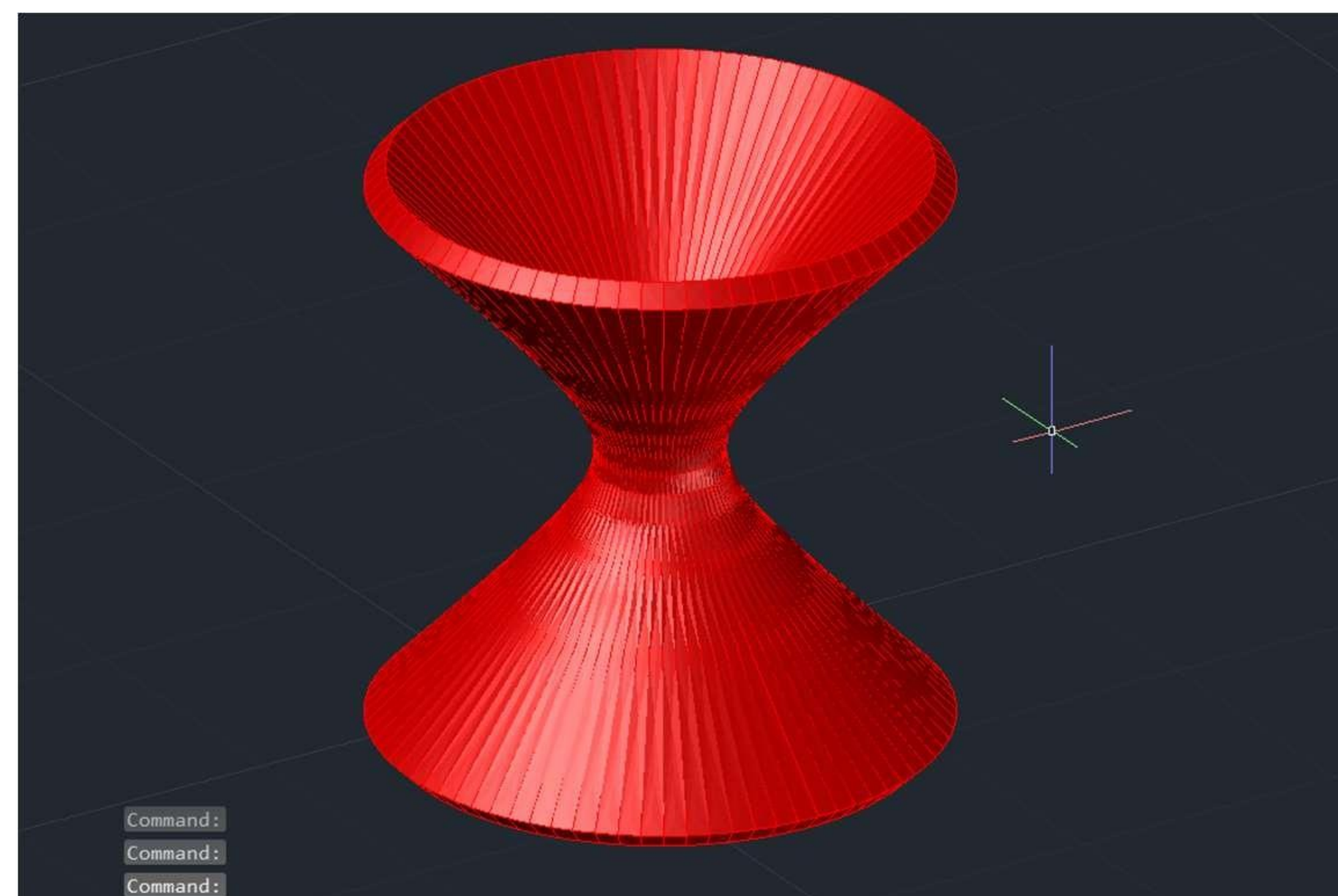
## Exerc. 5 – Xadrez



Comando *Array* com a diagonal criada



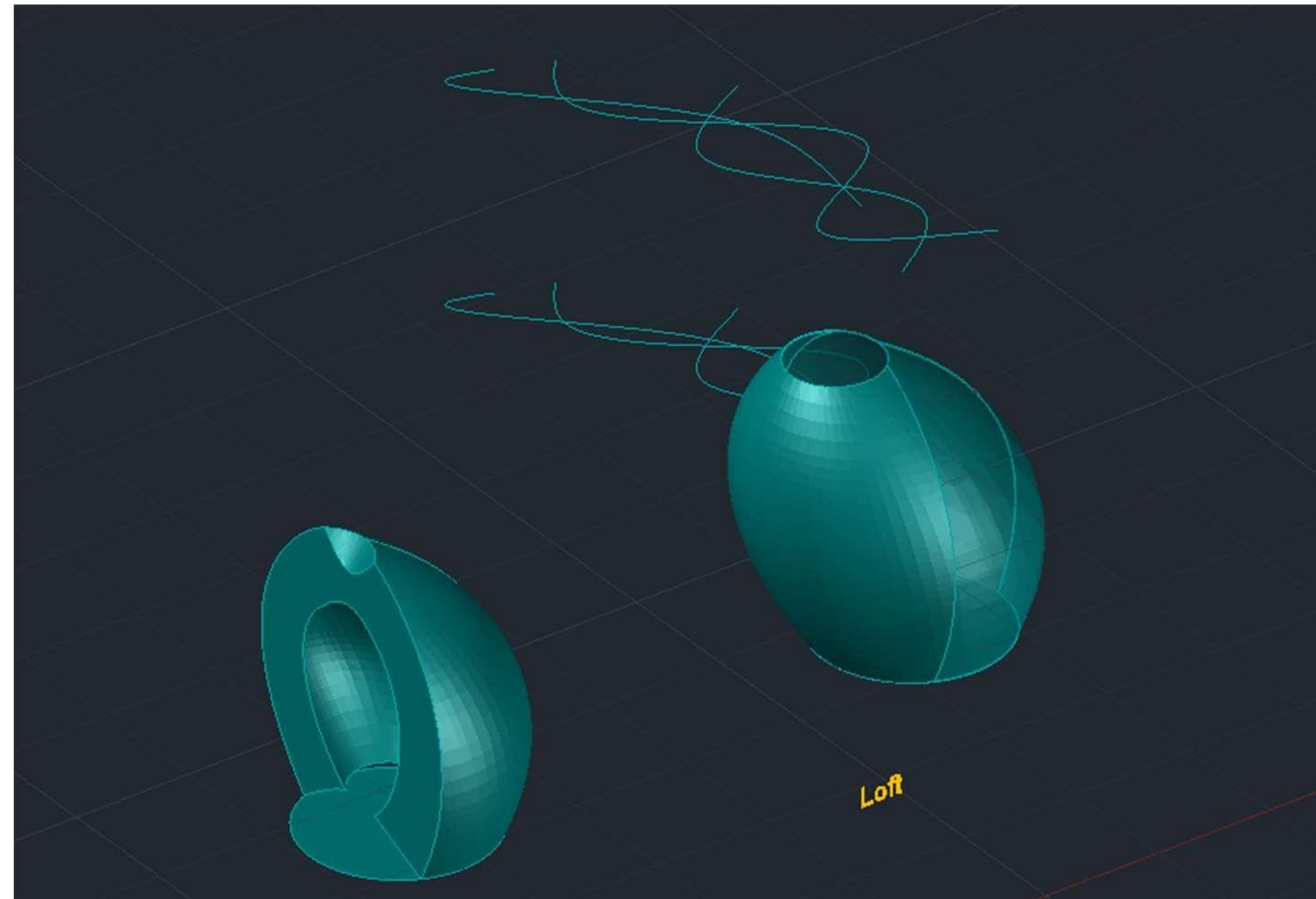
Comando *Array* com a diagonal com a segunda diagonal criada



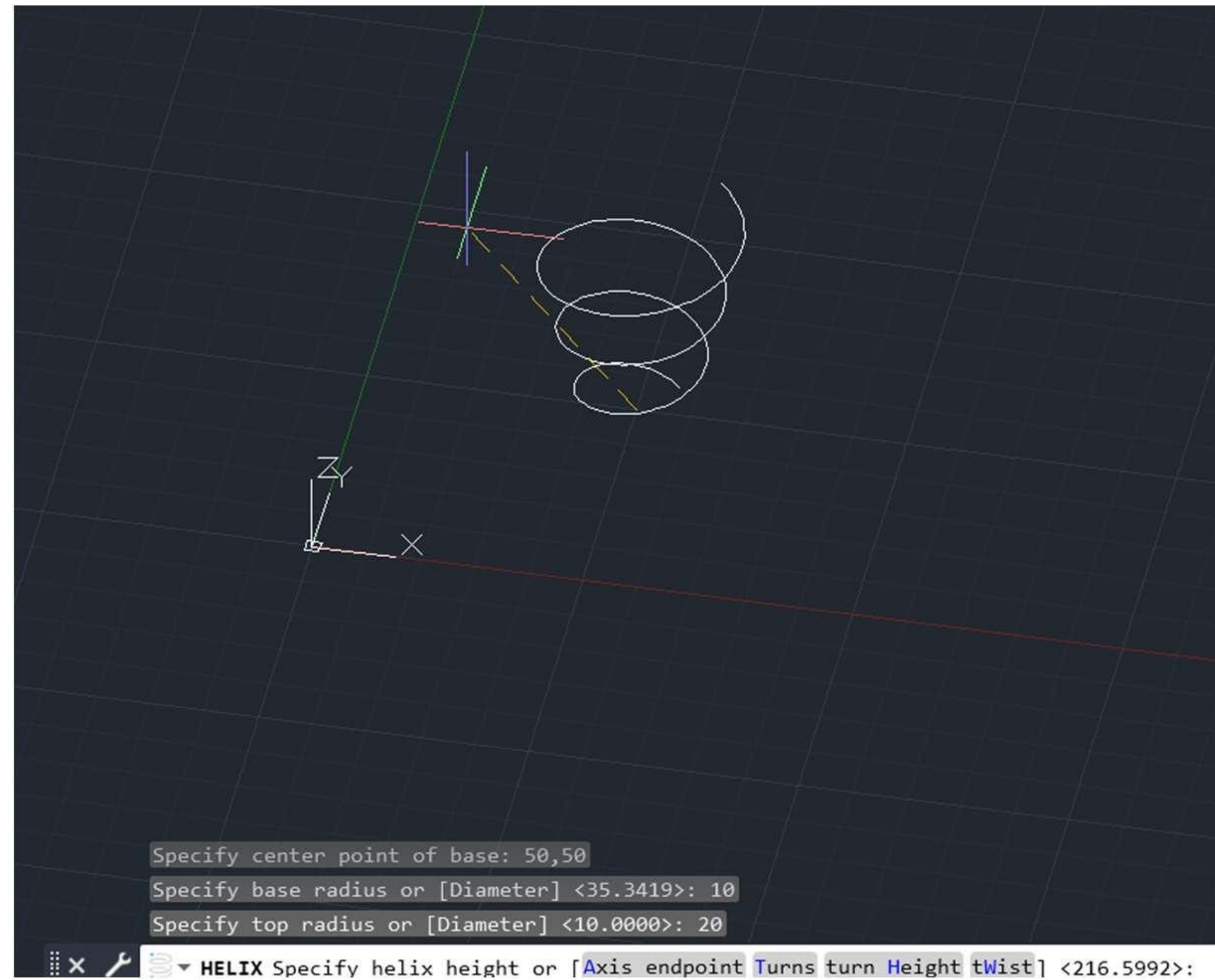
Comando *Shade* e *Thicken*



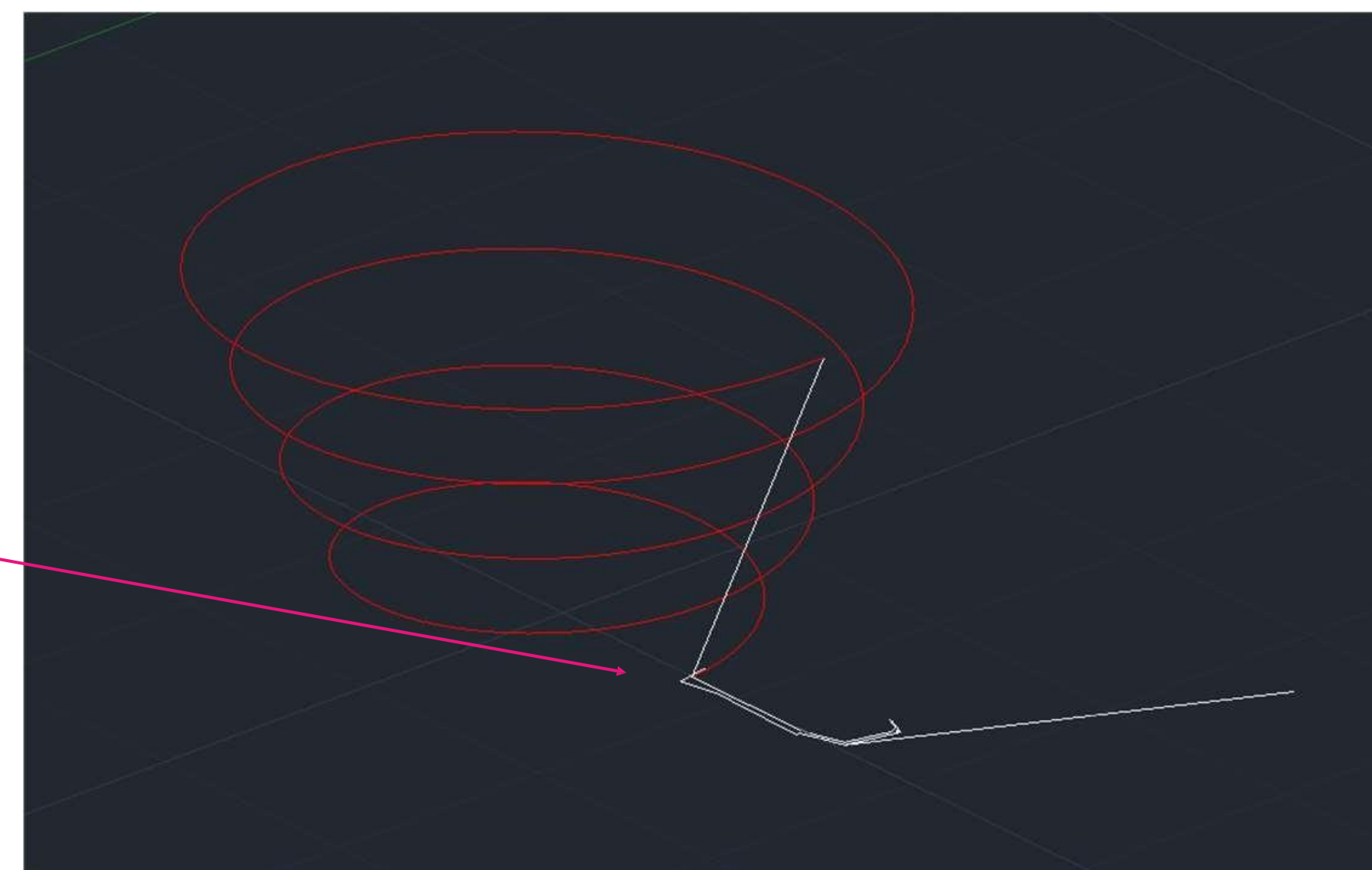
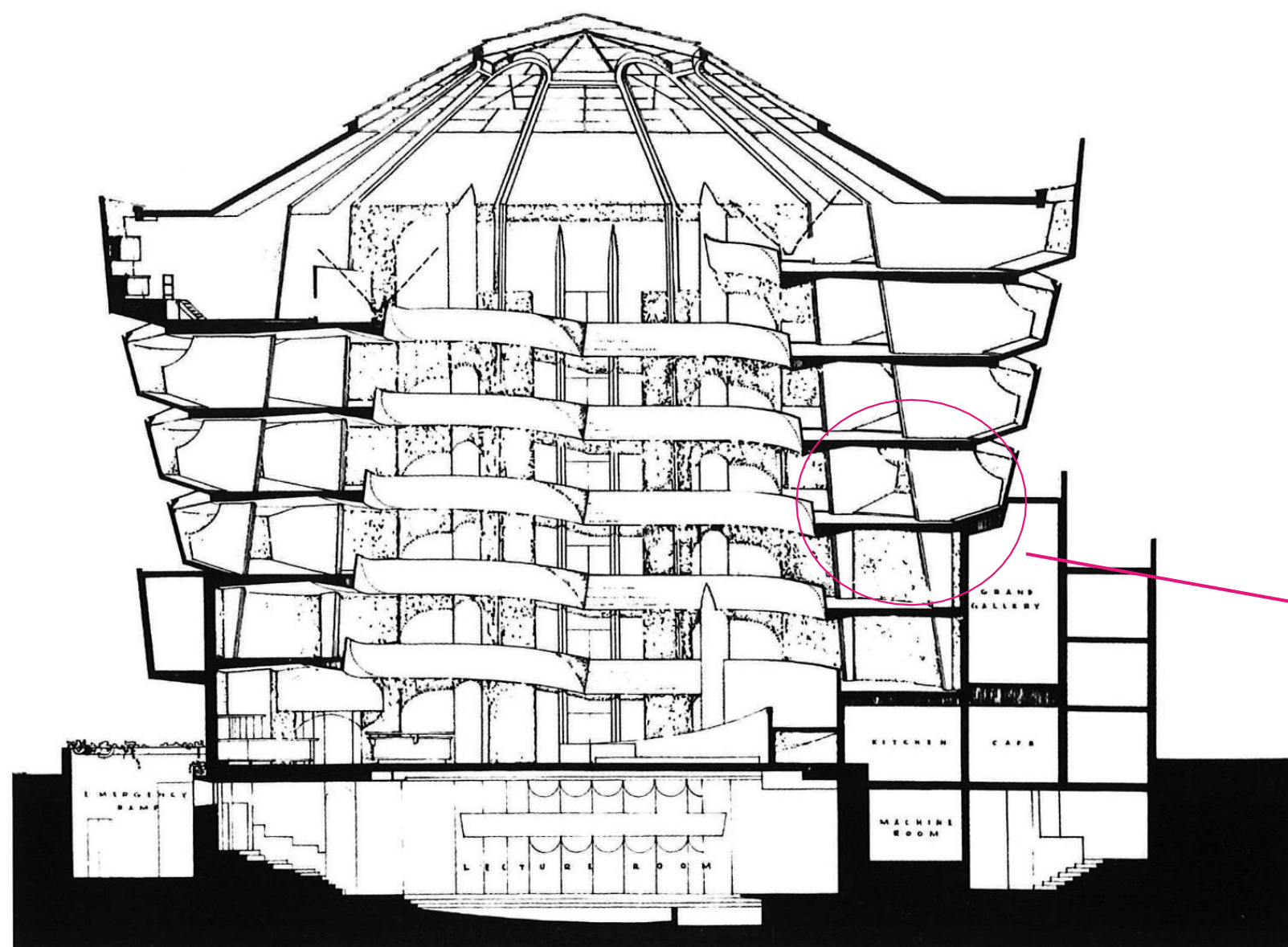
Exerc. 6 – Parabolóide Hiperbólica



Exerc. 6.3 – Introdução comando *Loft*

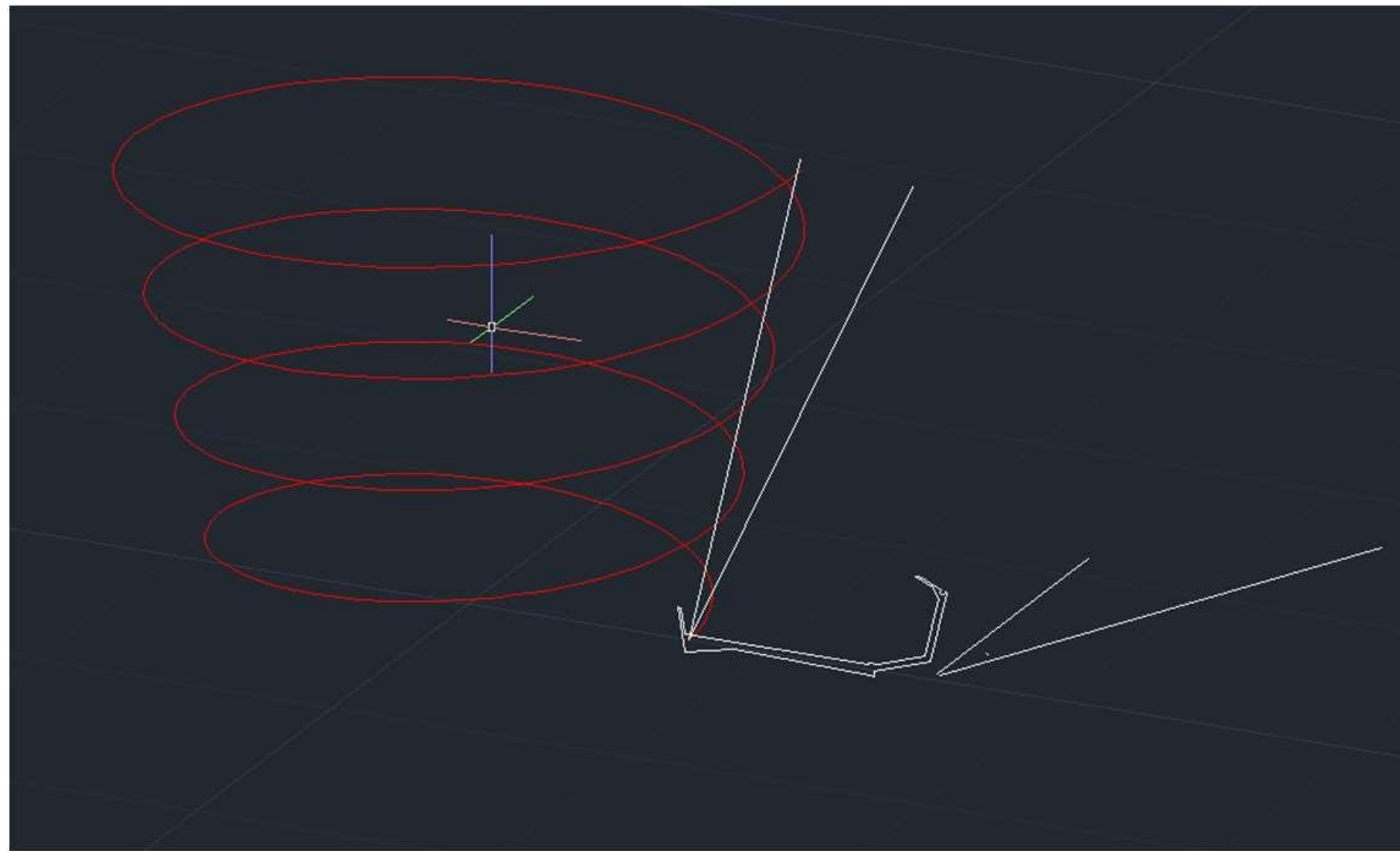


## Exerc. 7 - Helix

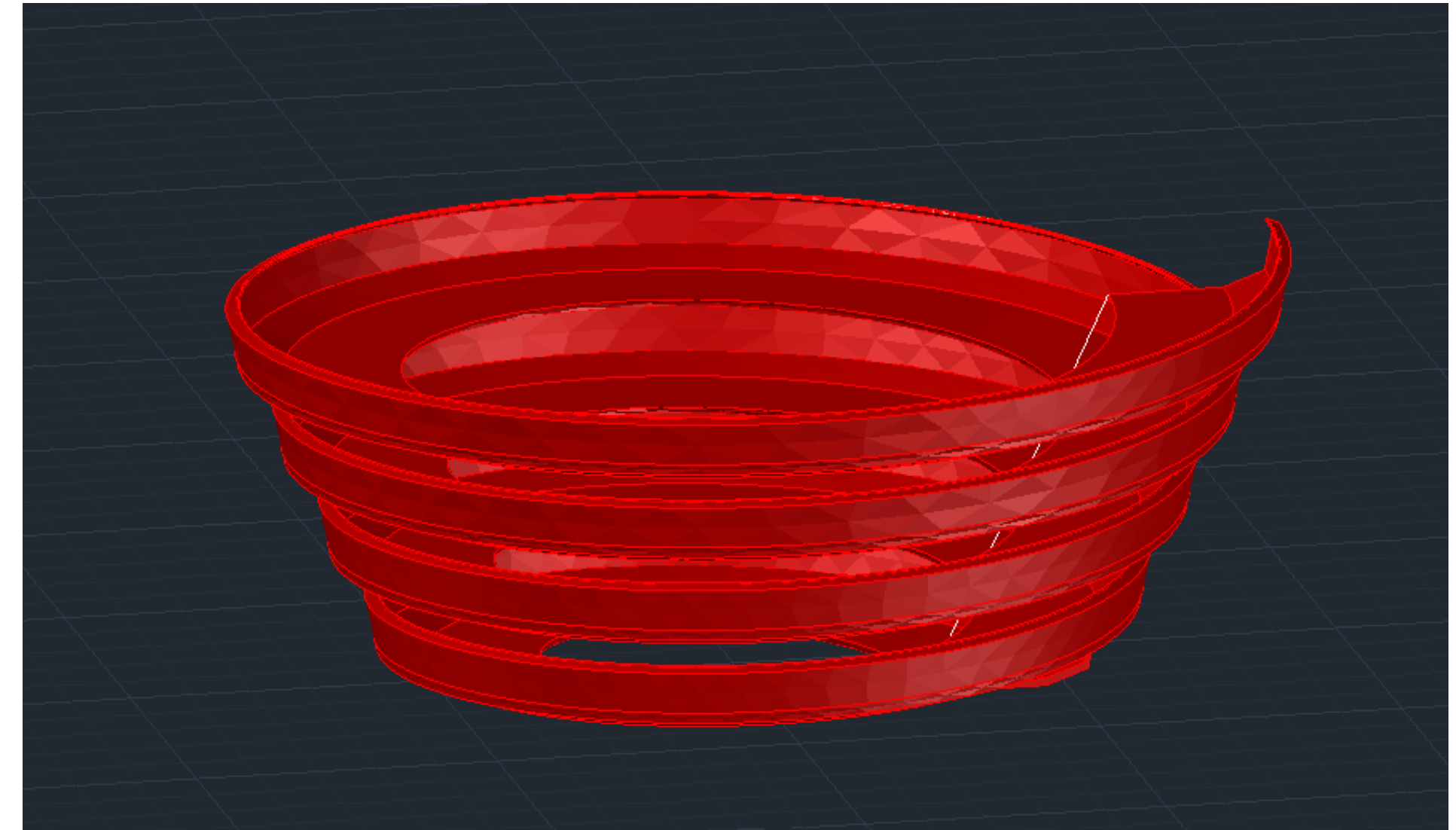


Reprodução no Autocad de uma parte da secção do *Museu Solomon R. Guggenheim (NY)*

## Exerc. 7 - Helix

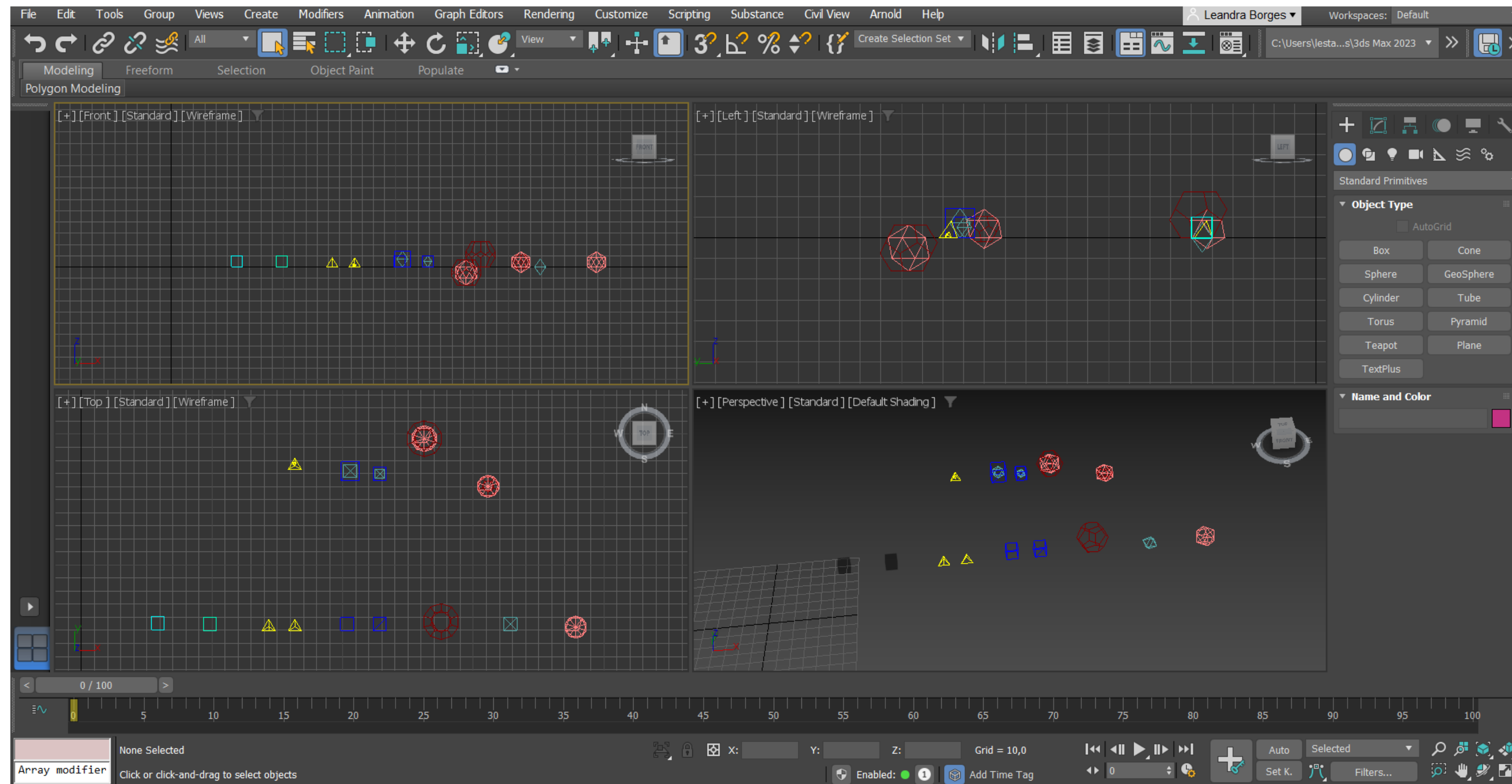


Comando 3DRotate no desenho da secção para o plano vertical e alinhamento da Helix com a inclinação da secção

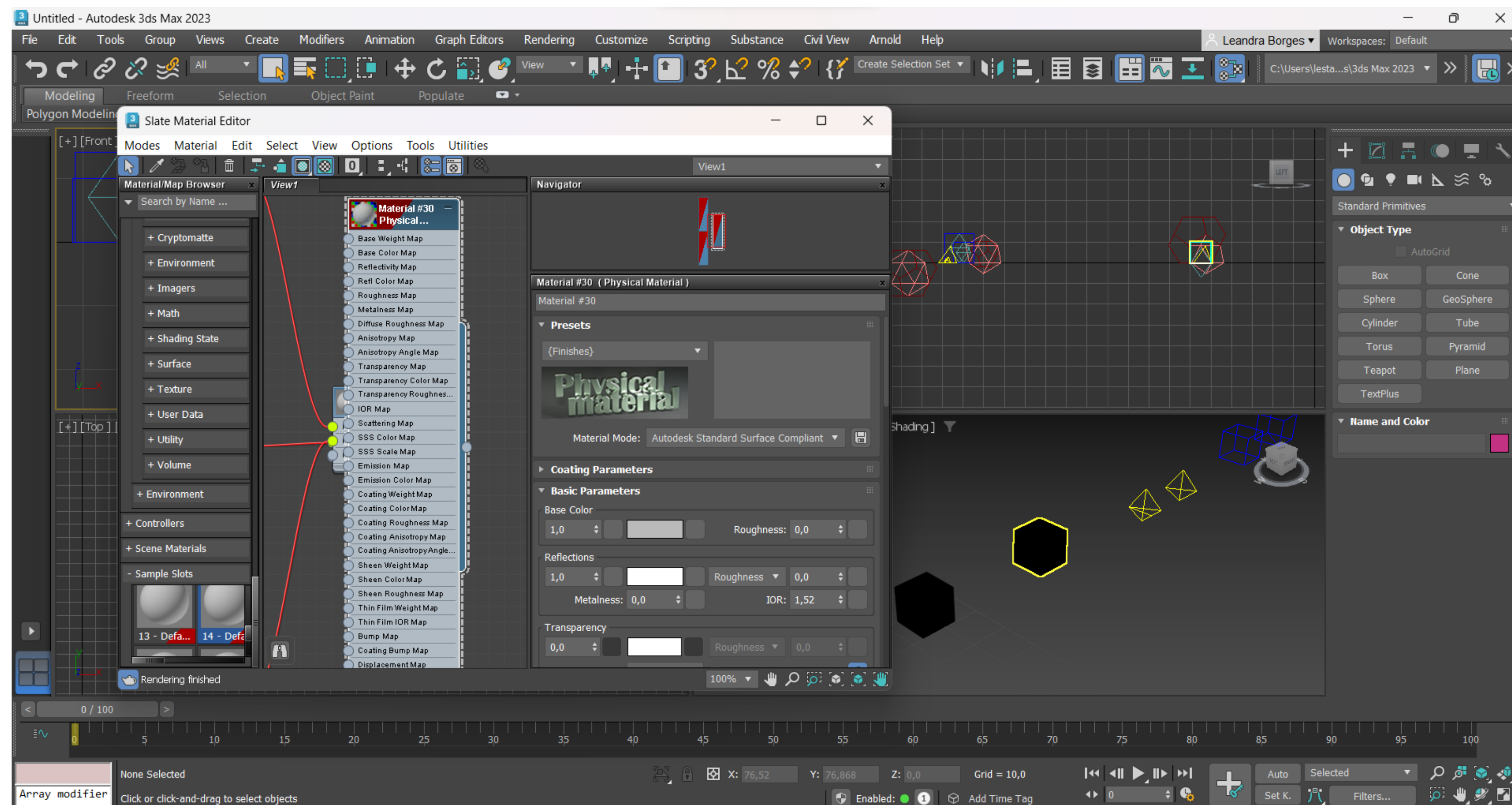


Comando Extrude no desenho da secção combinado com Path através da helix

## Exerc. 7 - Helix

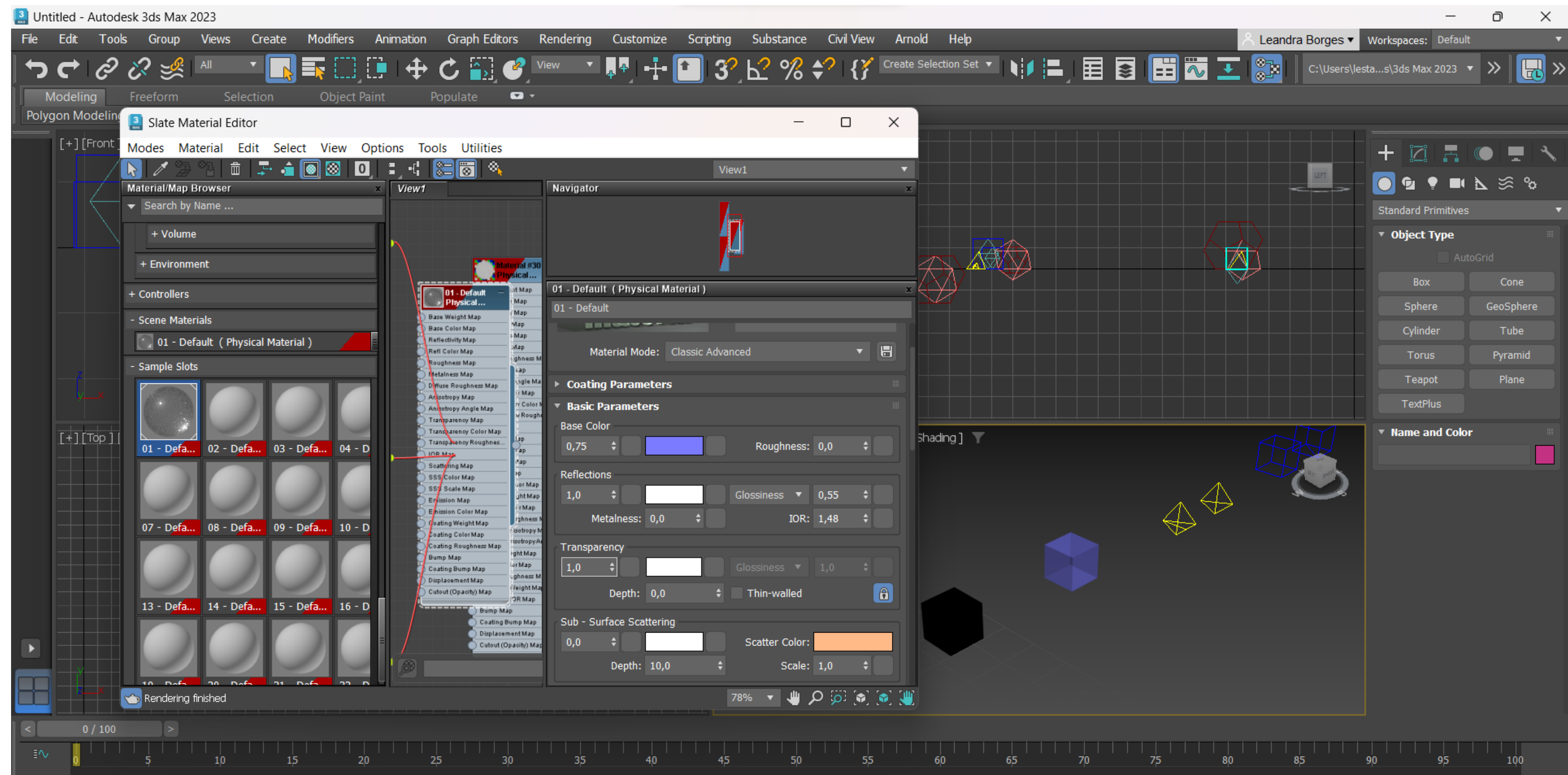


# Exerc. 8.1 – Import – Autocad para 3ds Max

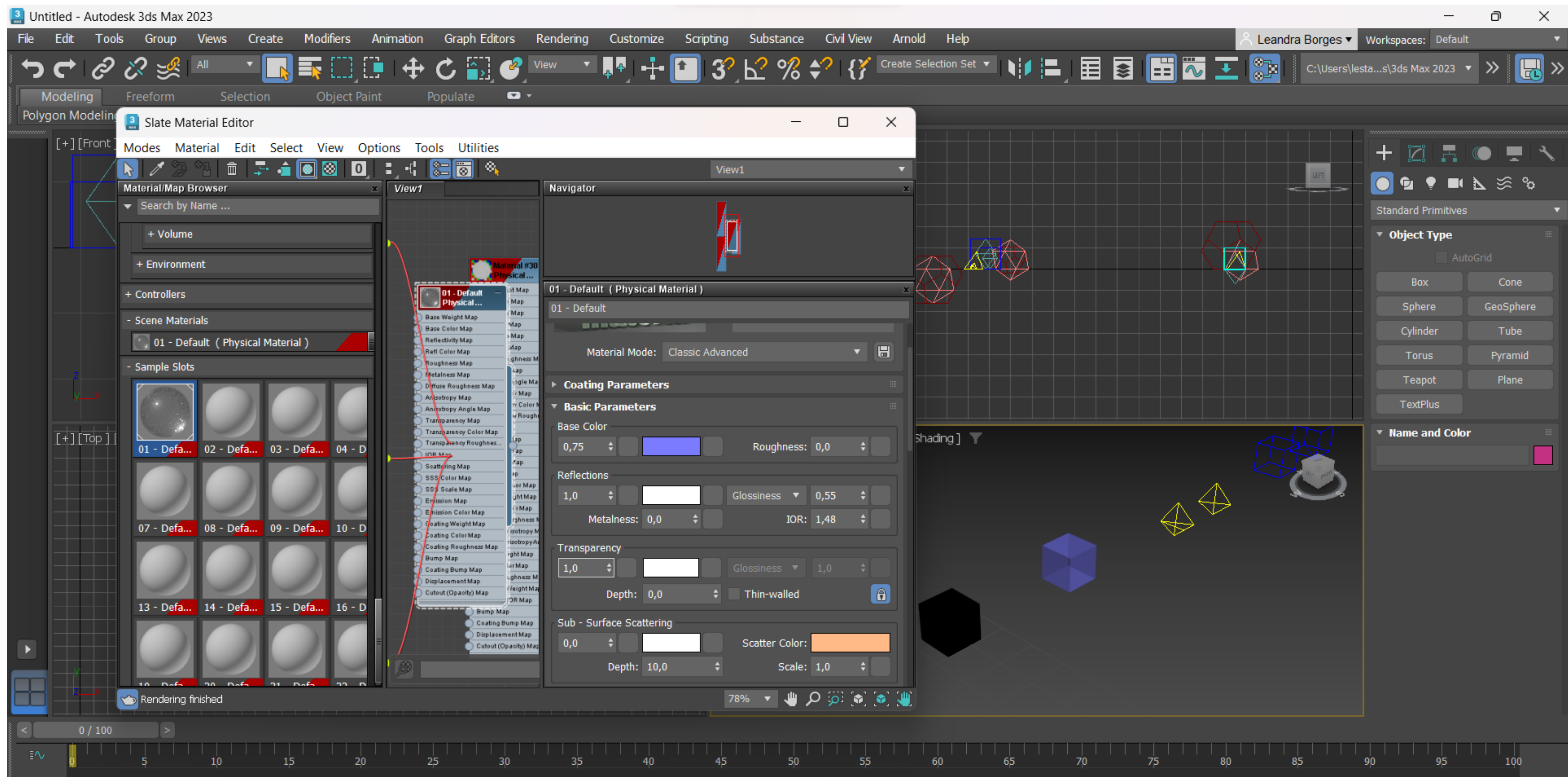


Introdução de materiais

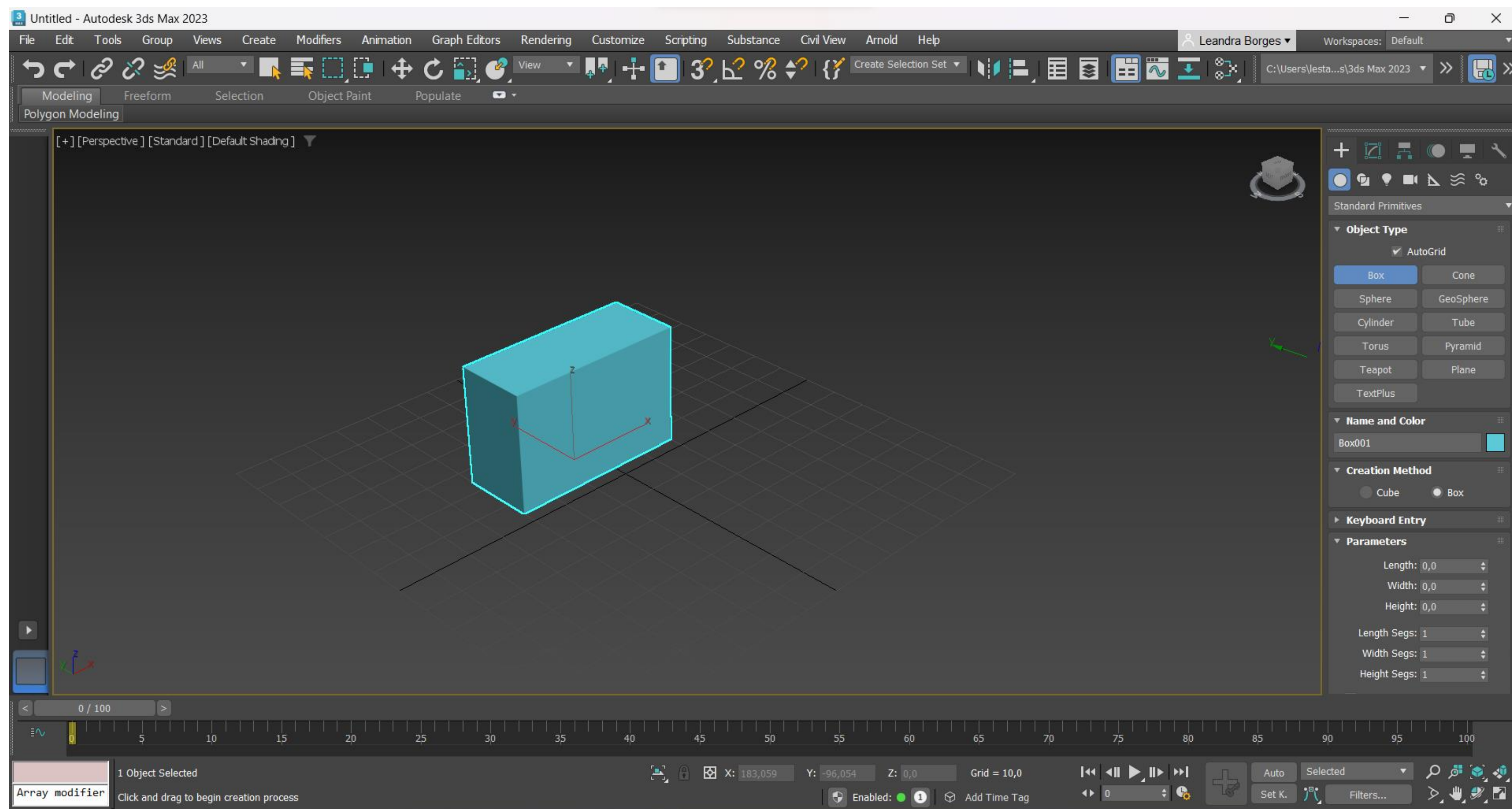
# Exerc. 8.1 – Import – Autocad para 3ds Max



# Exerc. 8.1 – Import – Autocad para 3ds Max

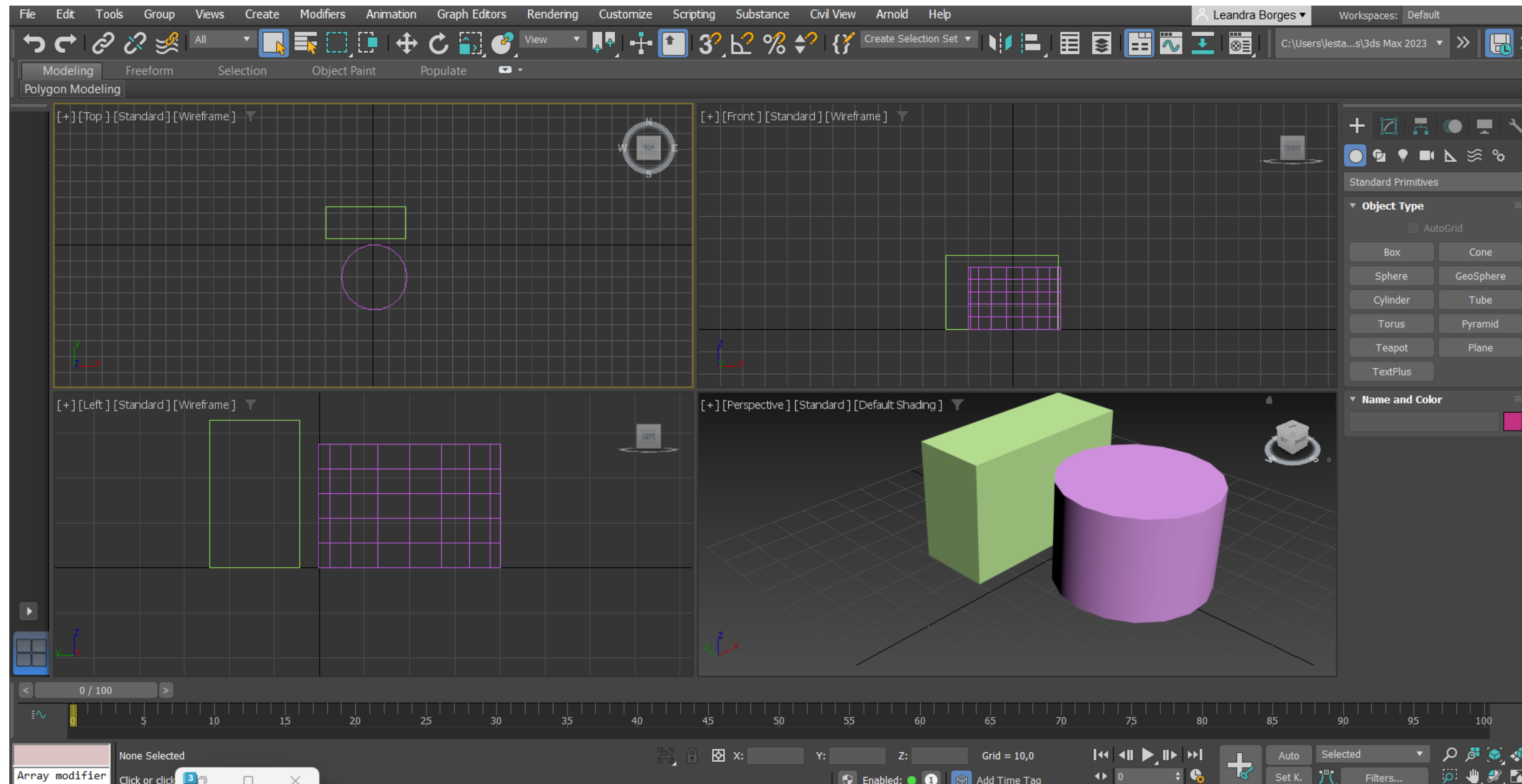


# Exerc. 8.1 – Import – Autocad para 3ds Max



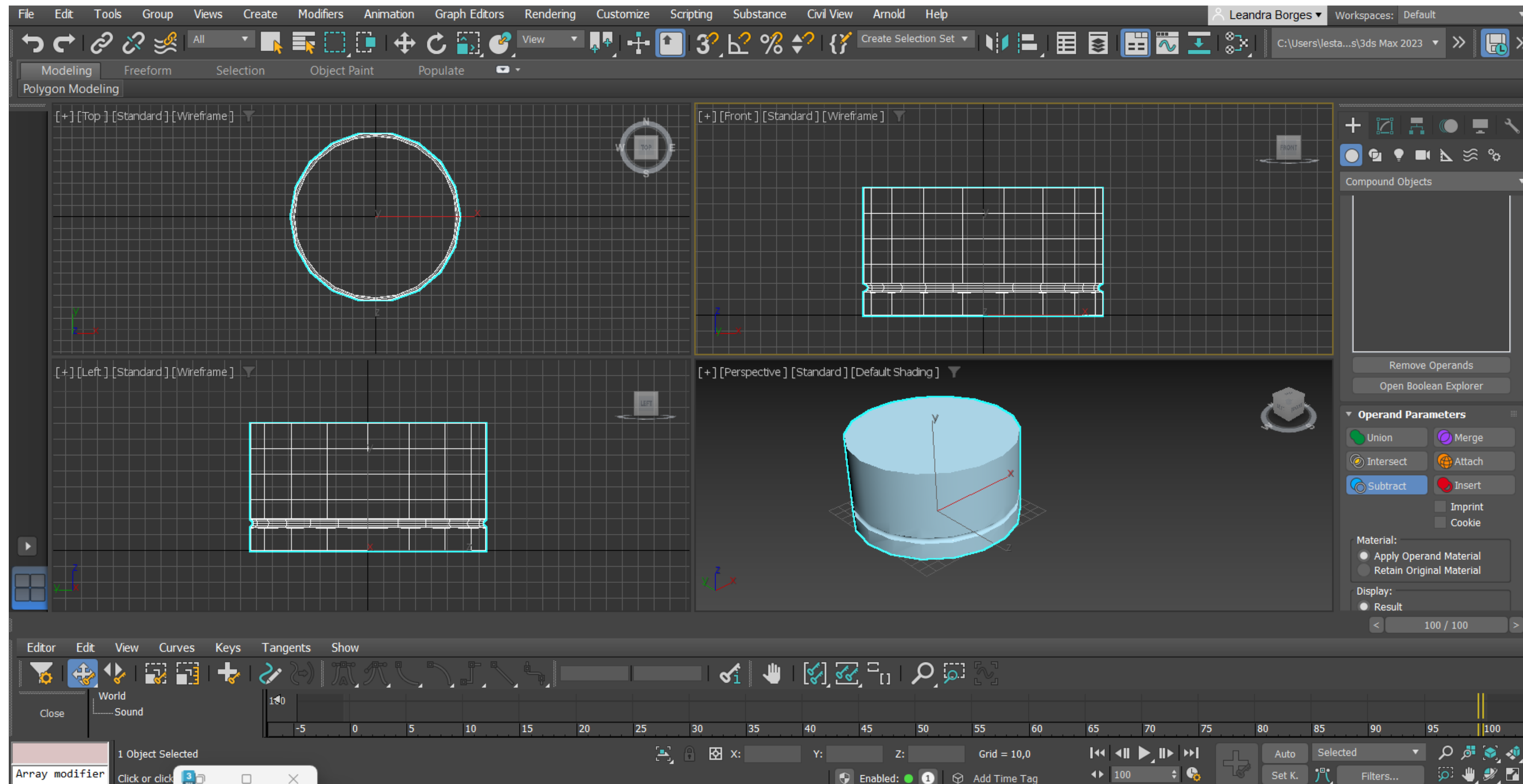
Criação de sólido através do comando *box*

# Exerc. 8.2 – Criação de sólidos



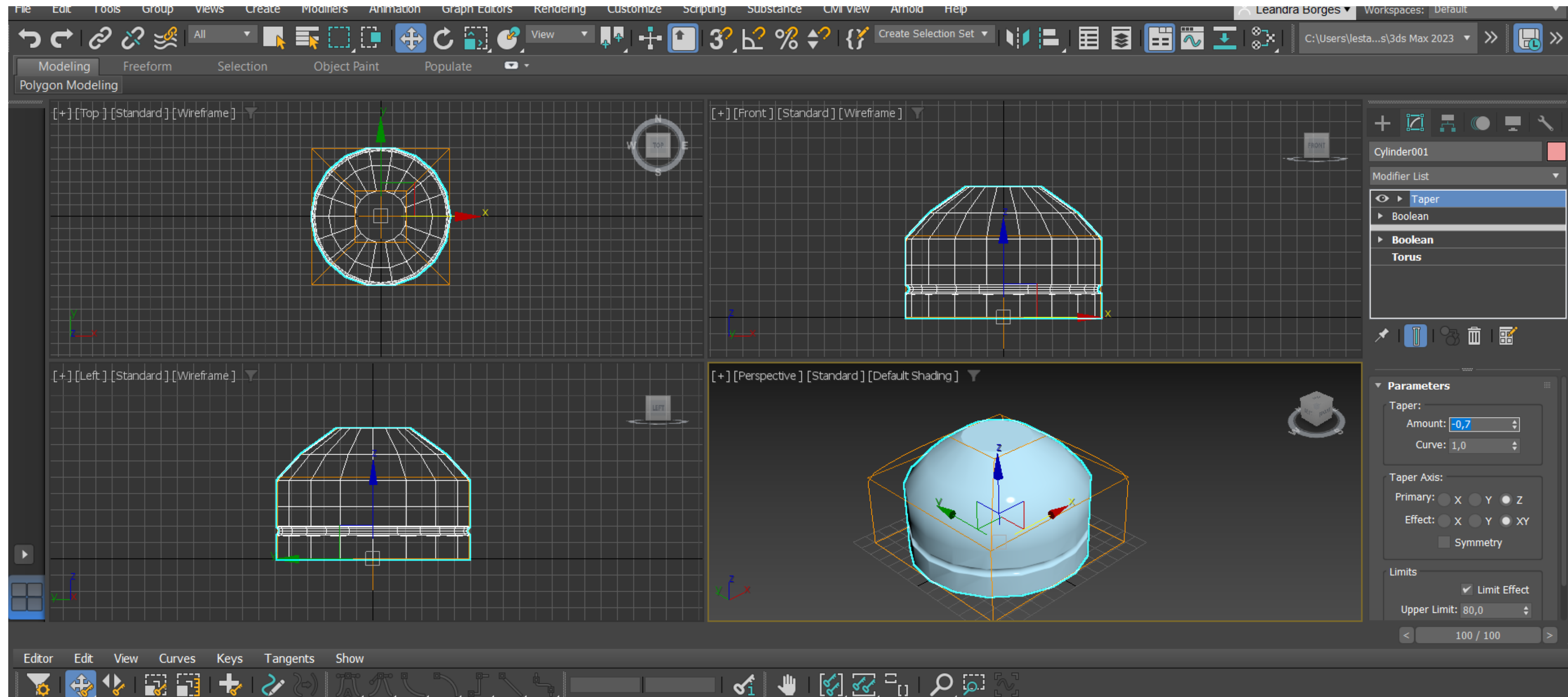
Criação de sólido através do comando *cylinder*

# Exerc. 8.2 – Criação de sólidos



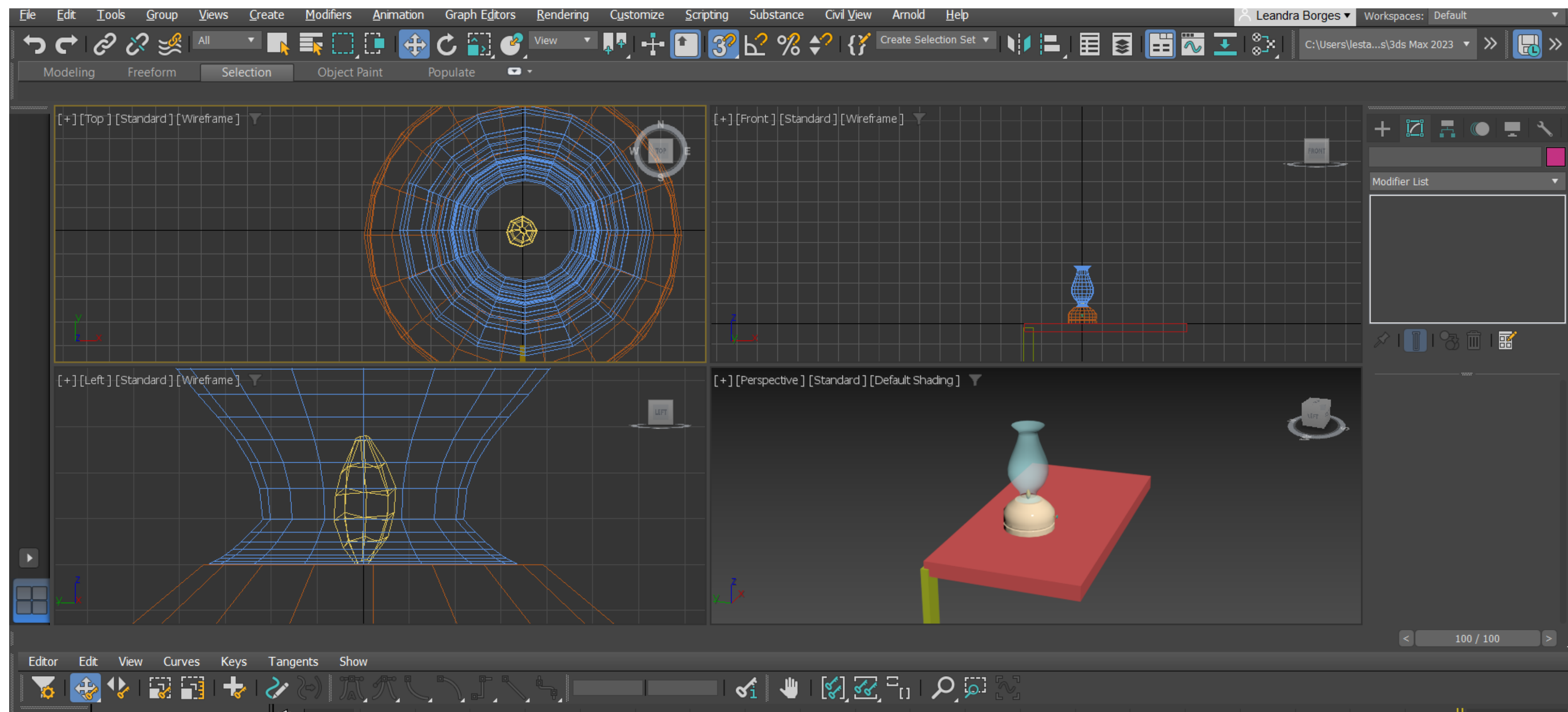
Criação da base do candeeiro através de um cilindro e a subtração de um torus a este cilindro

# Exerc. 9 - Candeeiro



Boleamento do topo do cilindro

# Exerc. 9 - Candeeiro

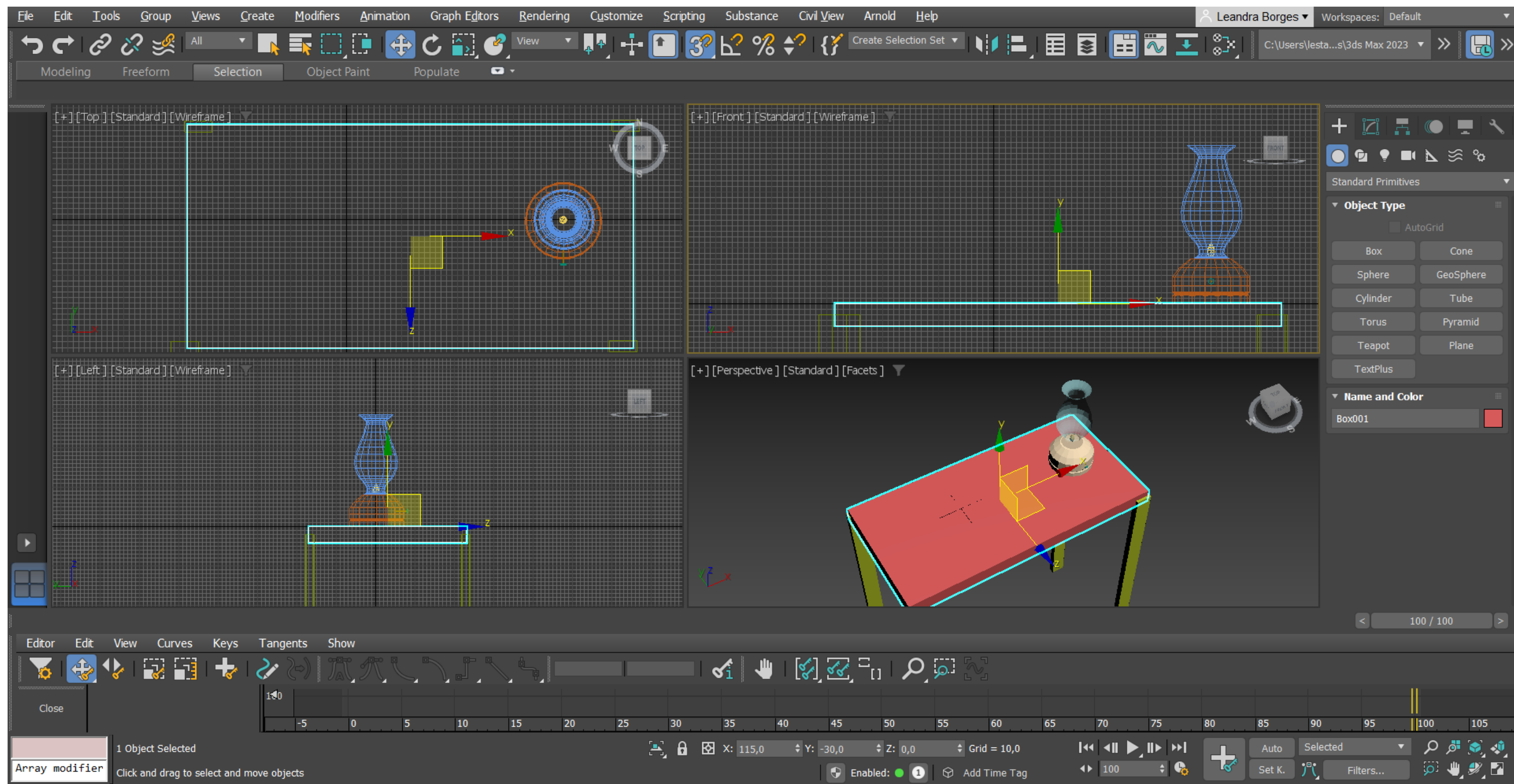


Criação de uma mesa de apoio

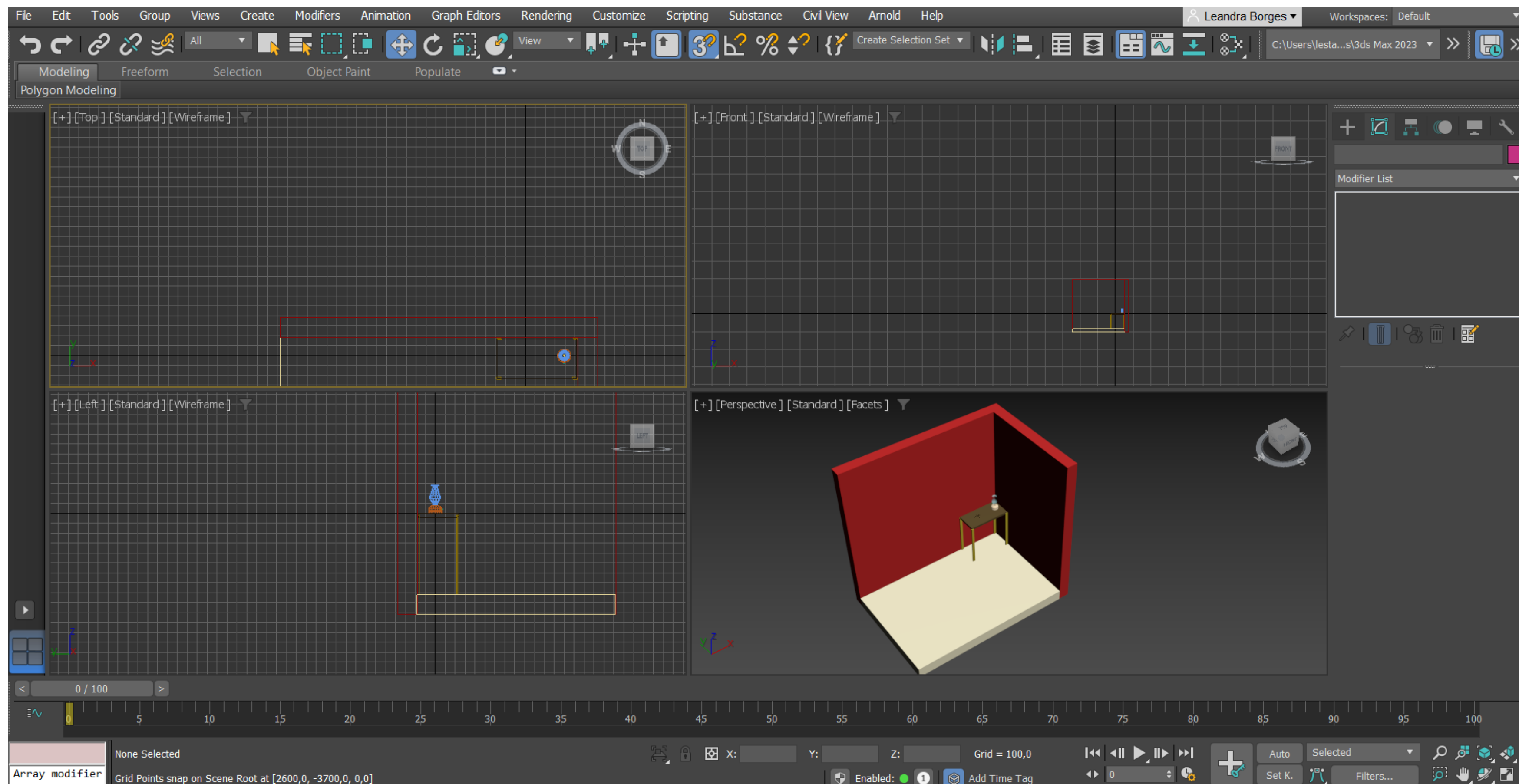
Chama do candeeiro

Vidro que contém a chama através de uma *spline* para criar a curva

# Exerc. 9 - Candeeiro

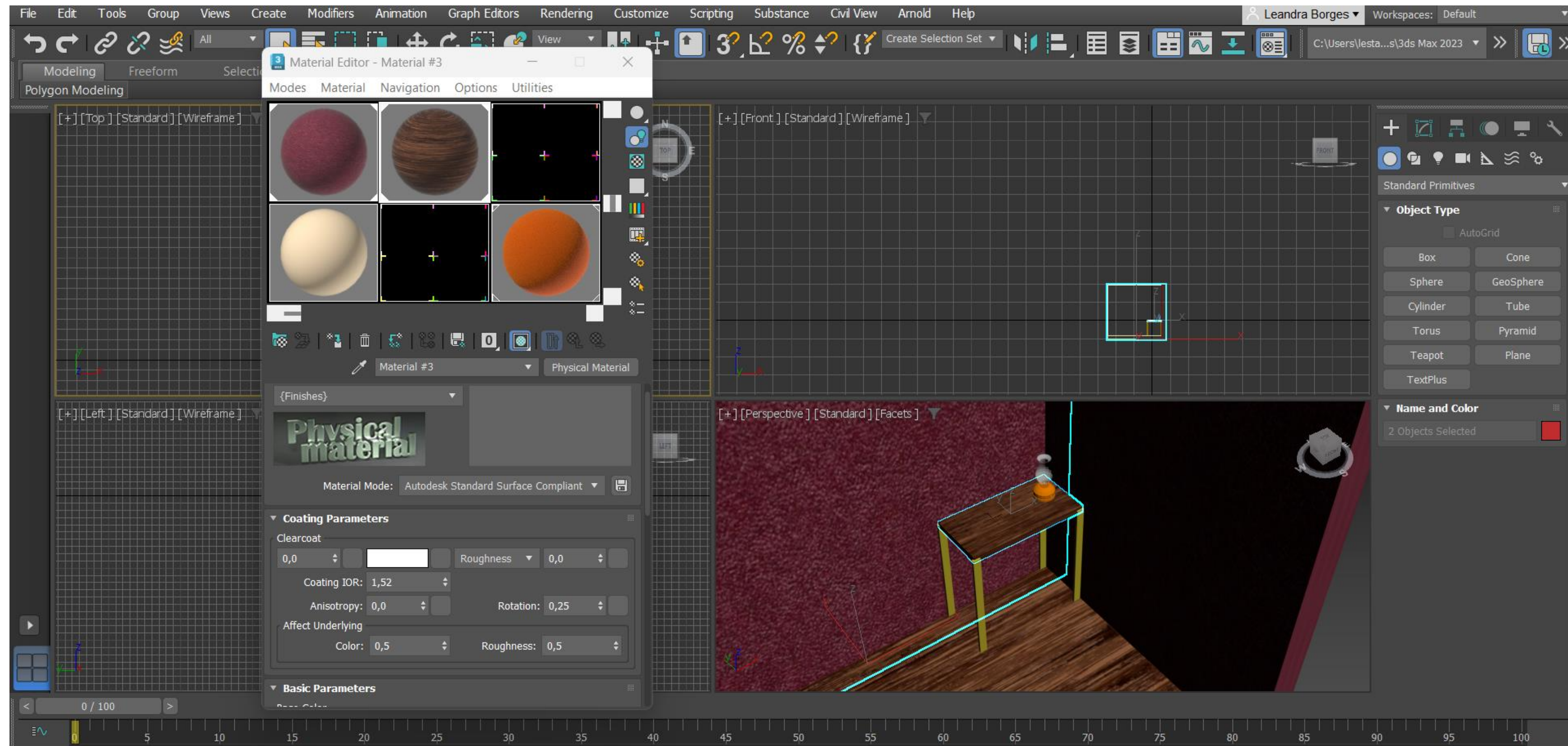


# Exerc. 9 - Candeeiro



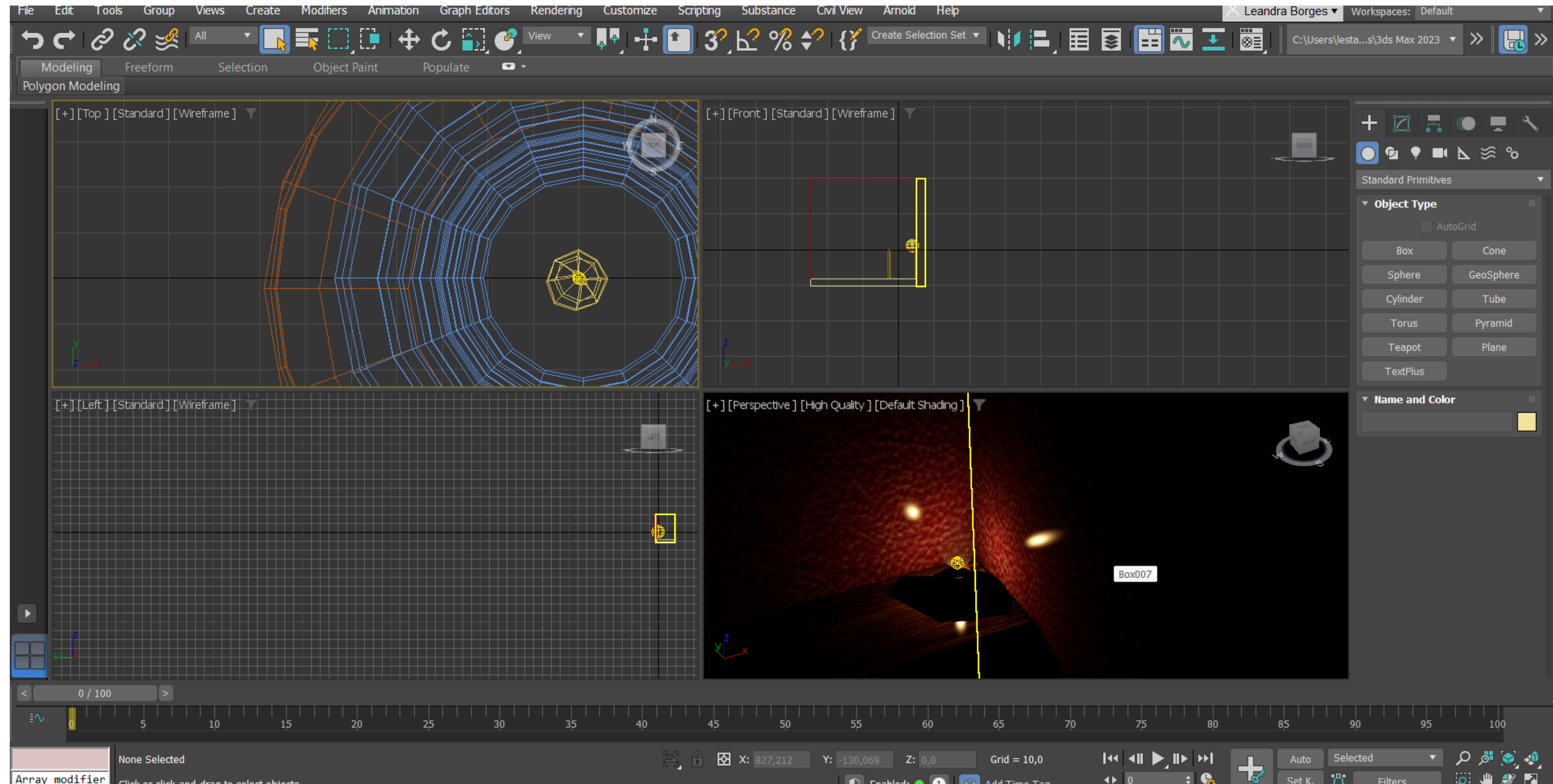
Criação de duas paredes e chão

# Exerc. 9 - Candeeiro



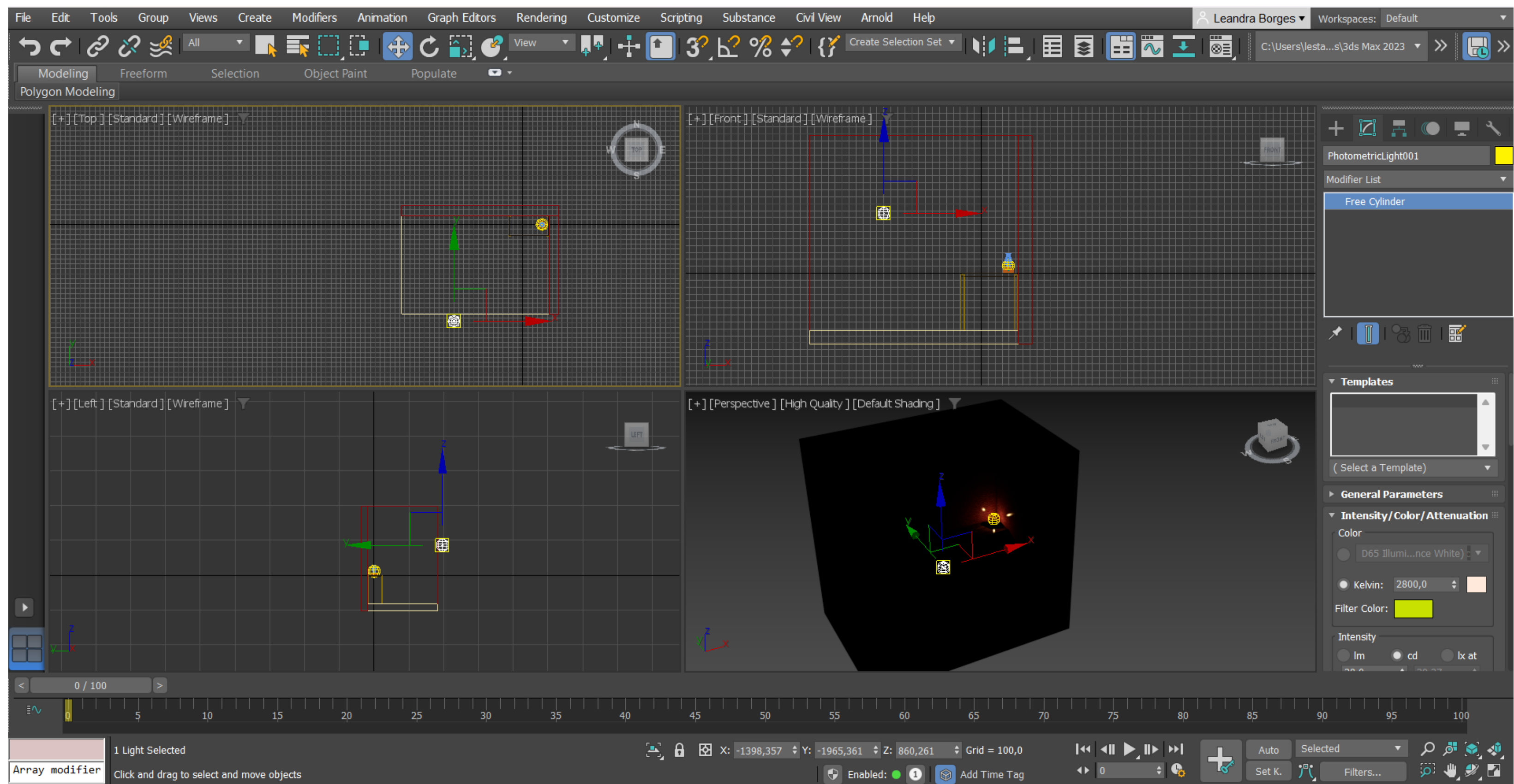
Criação e aplicação de materiais

# Exerc. 9 - Candeeiro

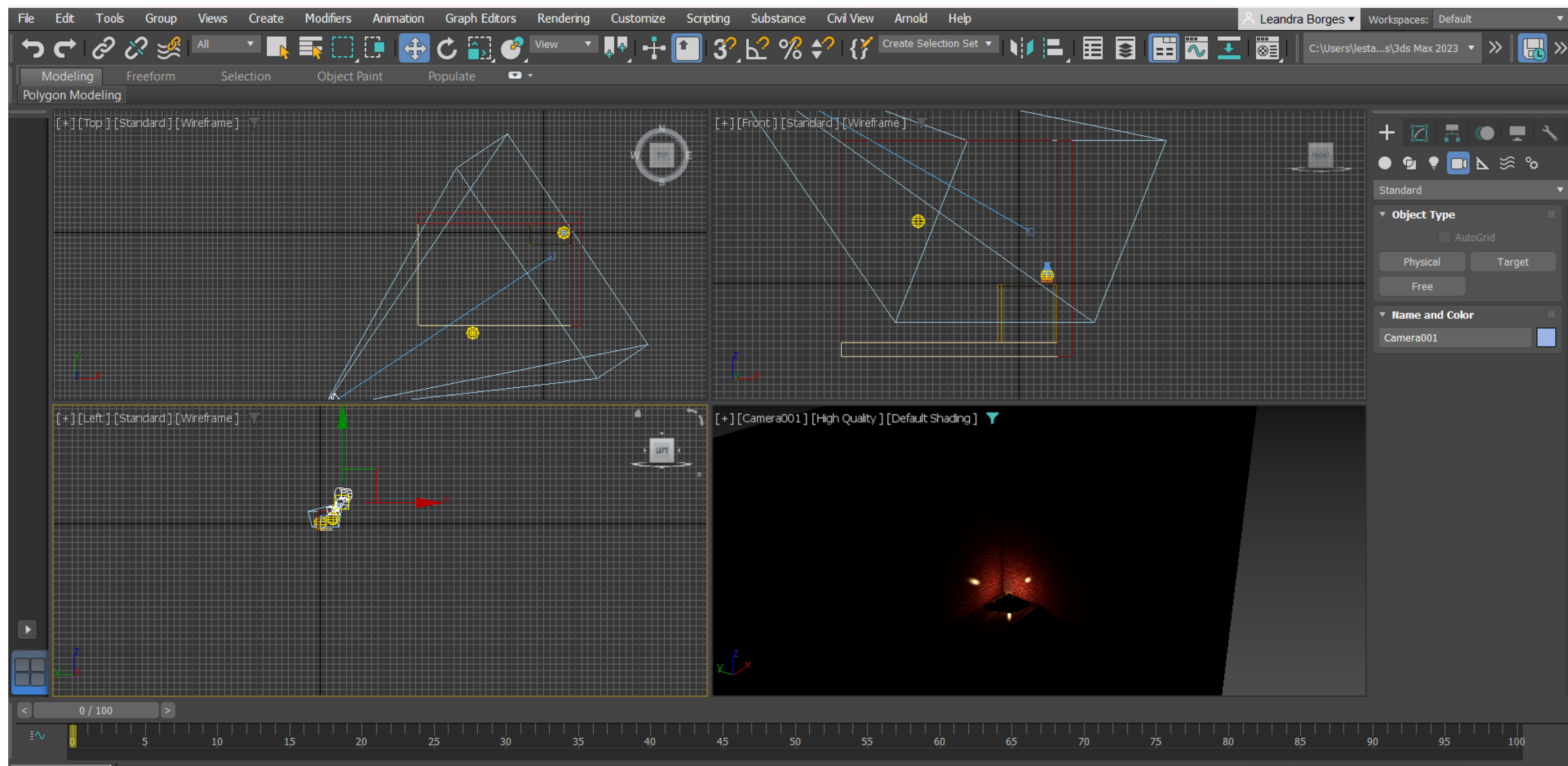


Luz da chama do candeeiro

# Exerc. 9 - Candeeiro

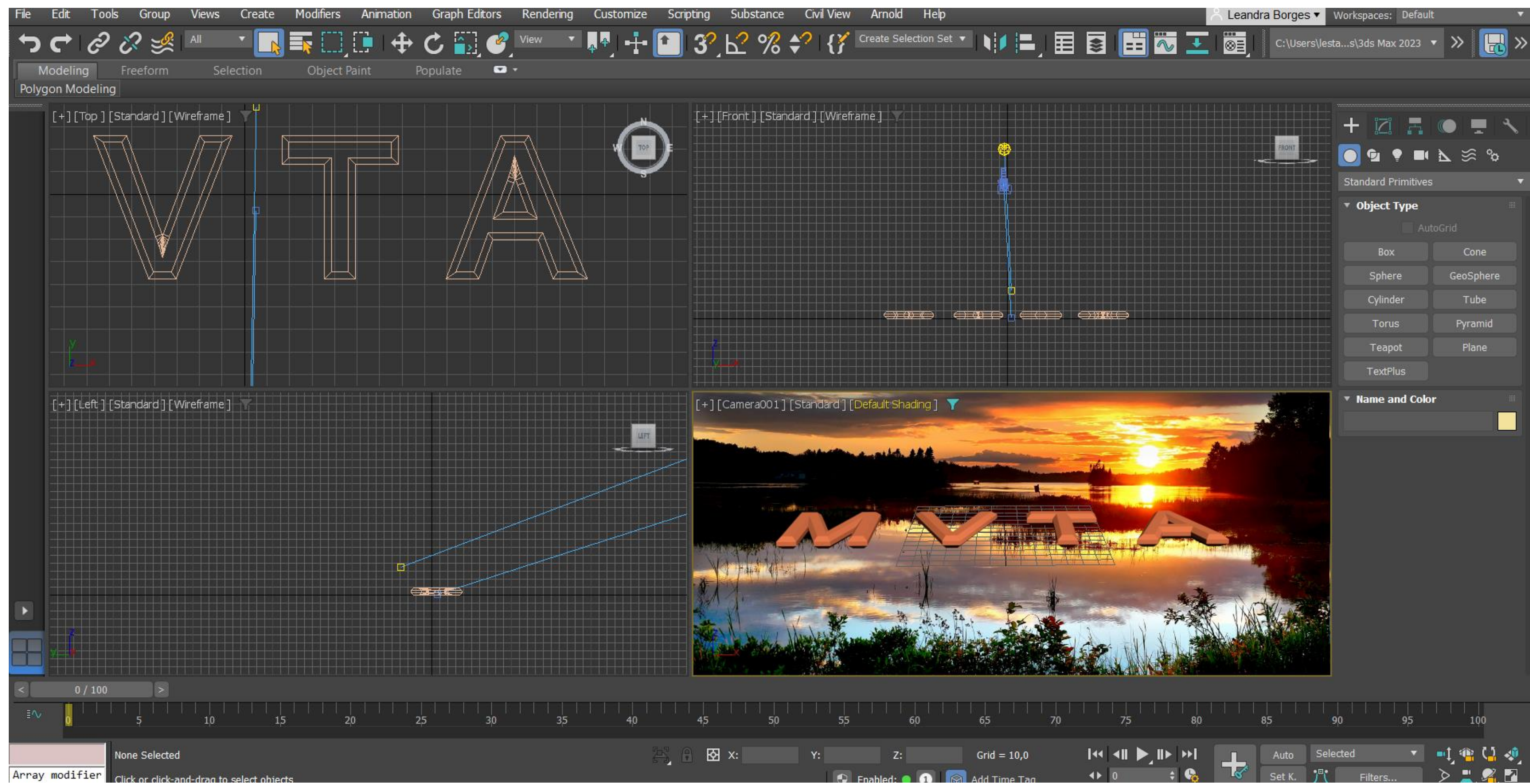


# Exerc. 9 - Candeeiro

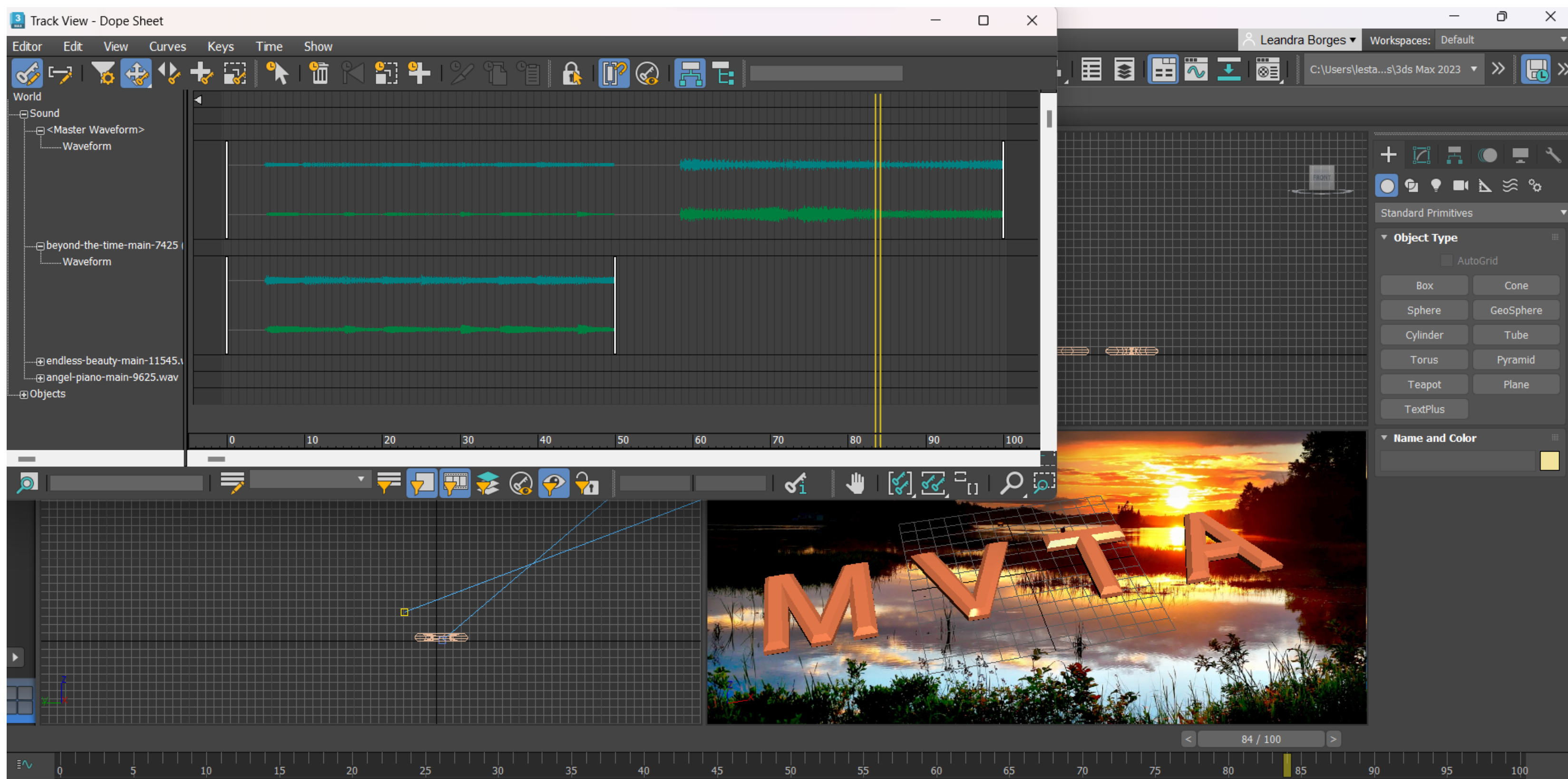


Posicionamento da câmara

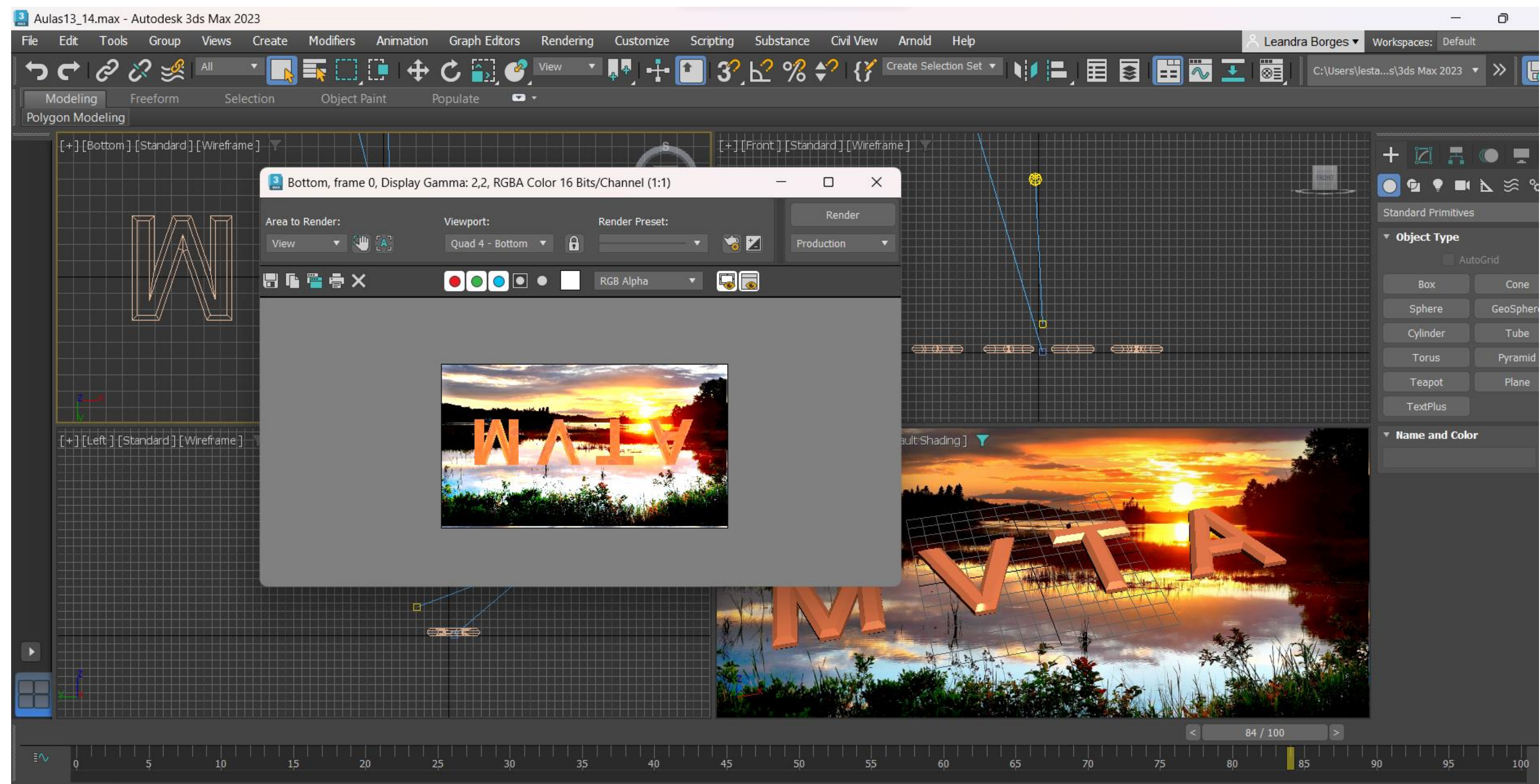
# Exerc. 9 - Candeeiro



Exerc. 10 – Animação – Render - Música



Exerc. 10 – Animação – Render - Música



Exerc. 10 – Animação – Render - Música