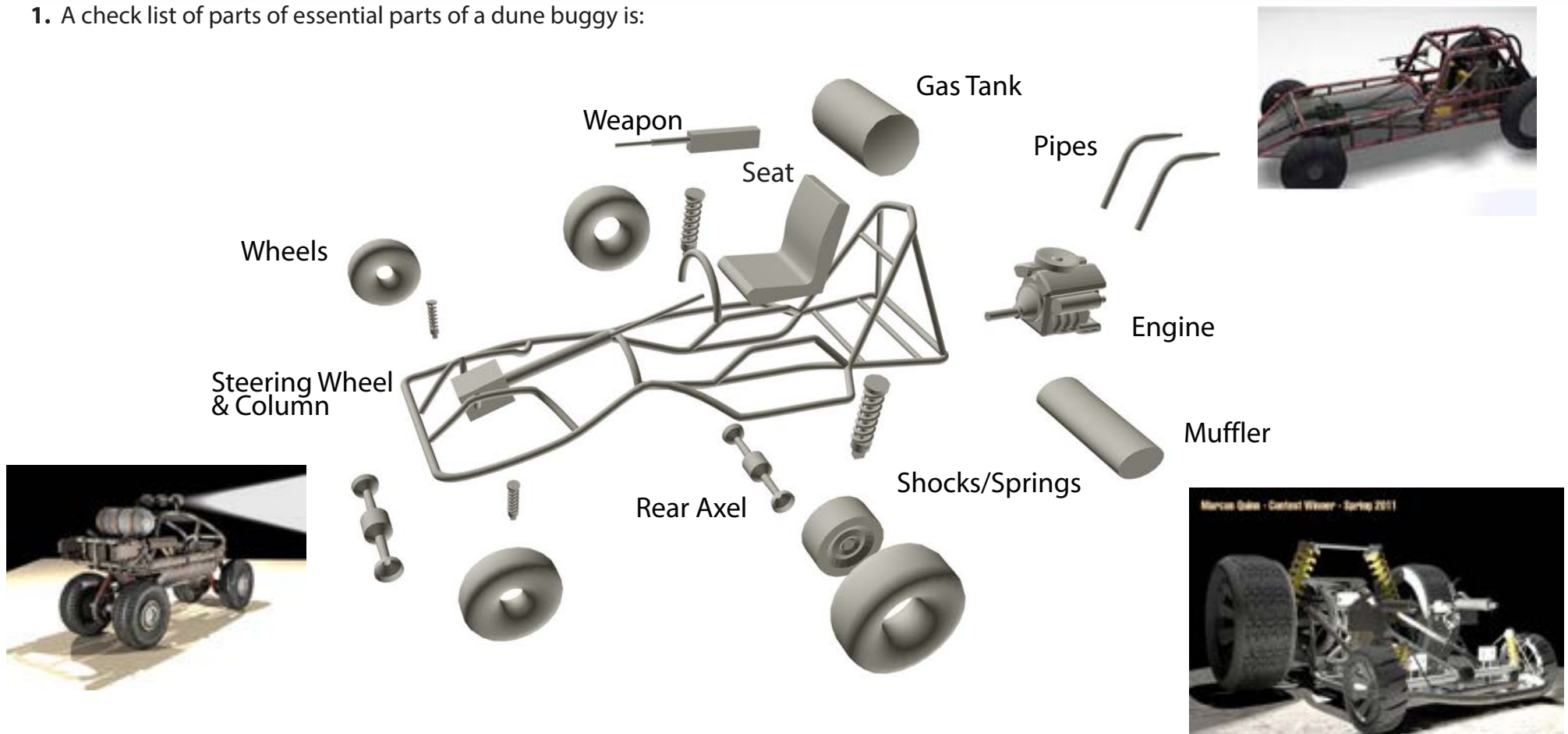Games need to run fast so the models (meshes) in the games need to use as few polygons as possible. The more polygons on a model, the longer it takes for the game engine to process, hence the slower the game play.

The Dune Buggy model has a limit of 20,000 polygons. To keep a running polygon count open *Views - Viewport Configuration -Statistics - Show Statistics in Active View*
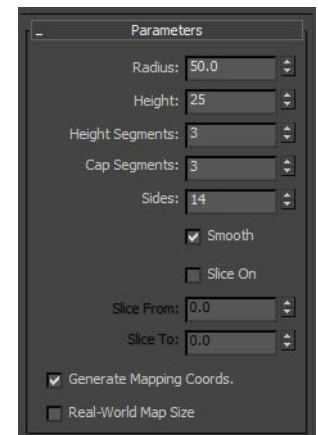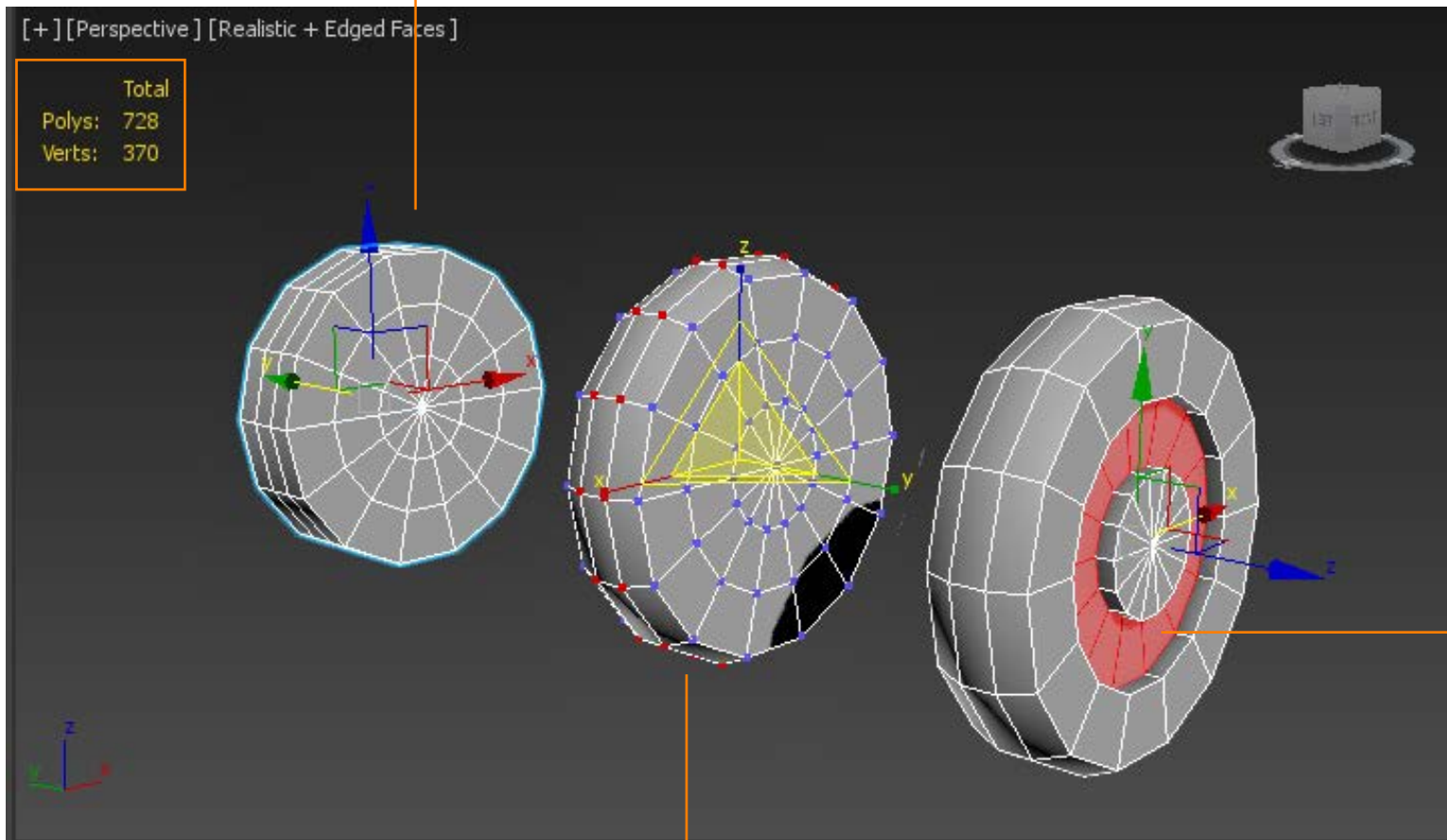
Furthermore, all polygons should be 4 sided (A few 3 sided are allowed). This makes modeling a bit more tricky.

1. A check list of parts of essential parts of a dune buggy is:

Gas Tank

Weapon

Seat

Pipes

Wheels

Steering Wheel & Column

Engine

Muffler

Rear Axel

Shocks/Springs

It all begins with the invention of the wheel! This sequence shows the modeling of a wheel and tire.

1. Begin by making a cylinder in the "Left Viewport". Set the cylinder to: Radius - 50
Height - 25
Height Cap - 3
Cap Segments - 3
Sides - 14

[+] [Perspective] [Realistic + Edged Faces]

Total
Polys: 728
Verts: 370

Parameters

Radius: 50.0
Height: 25
Height Segments: 3
Cap Segments: 3
Sides: 14
☑ Smooth
☐ Slice On
Slice From: 0.0
Slice To: 0.0
☑ Generate Mapping Coords.
☐ Real-World Map Size

2. Convert the cylinder into an "Editable Mesh".

3. Select the two rows of vertices (see illustration) and expand them with the "Scale" tool. This rounds the tire.

4. Select the inner ring of polygons and extrude them to create the wheel.

Next you will develop the frame onto which all other parts will be placed. Frames are made using the "Line" tool. You need only make one side of the frame. The opposite side is made by "Cloning" an "Instance".
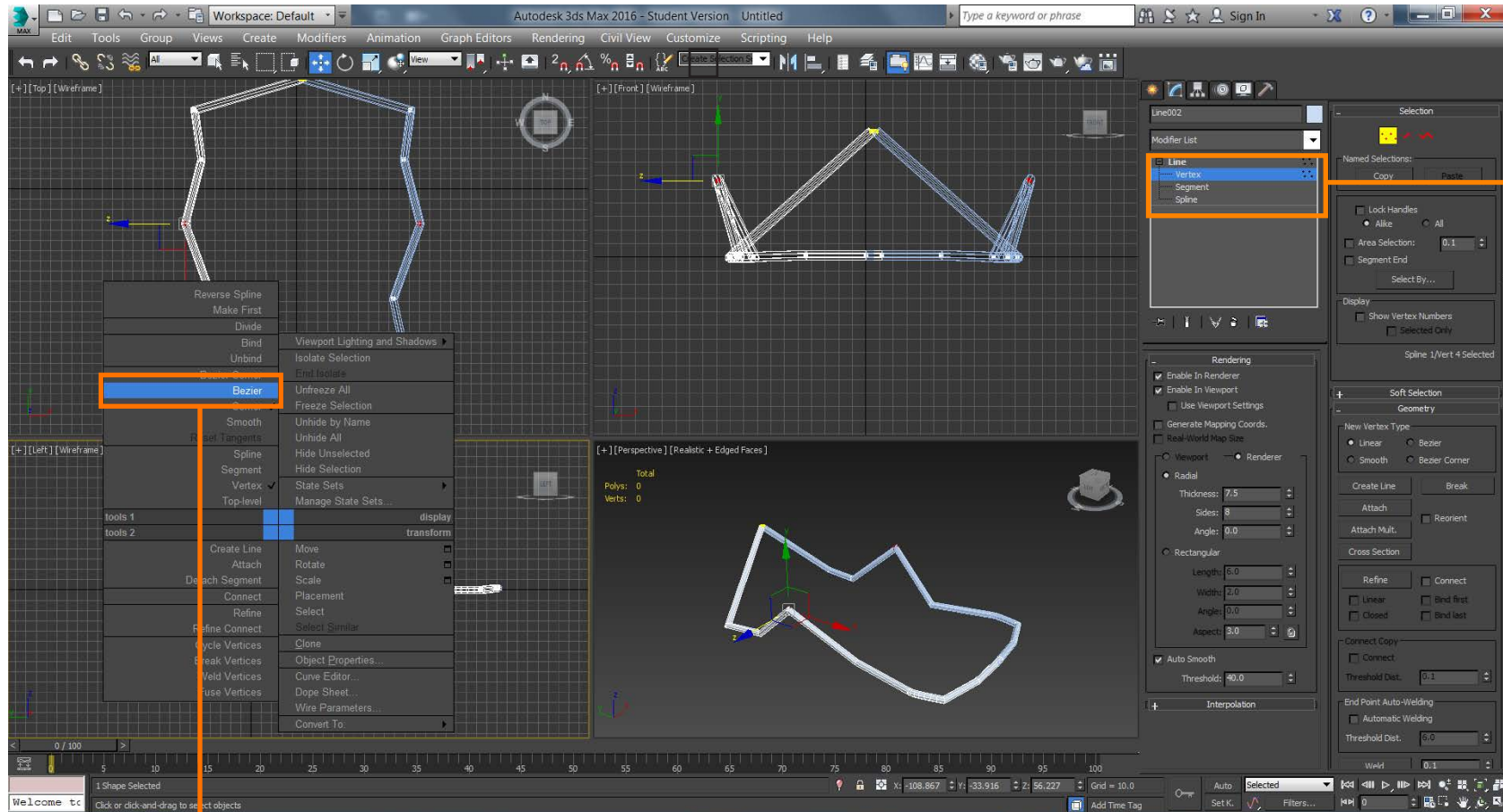
6. Reduce the sides to "8".

5. In the "Top" Viewport - Draw one side of the frame. (Turn these on)

7. Use the reflect tool to clone the other side.
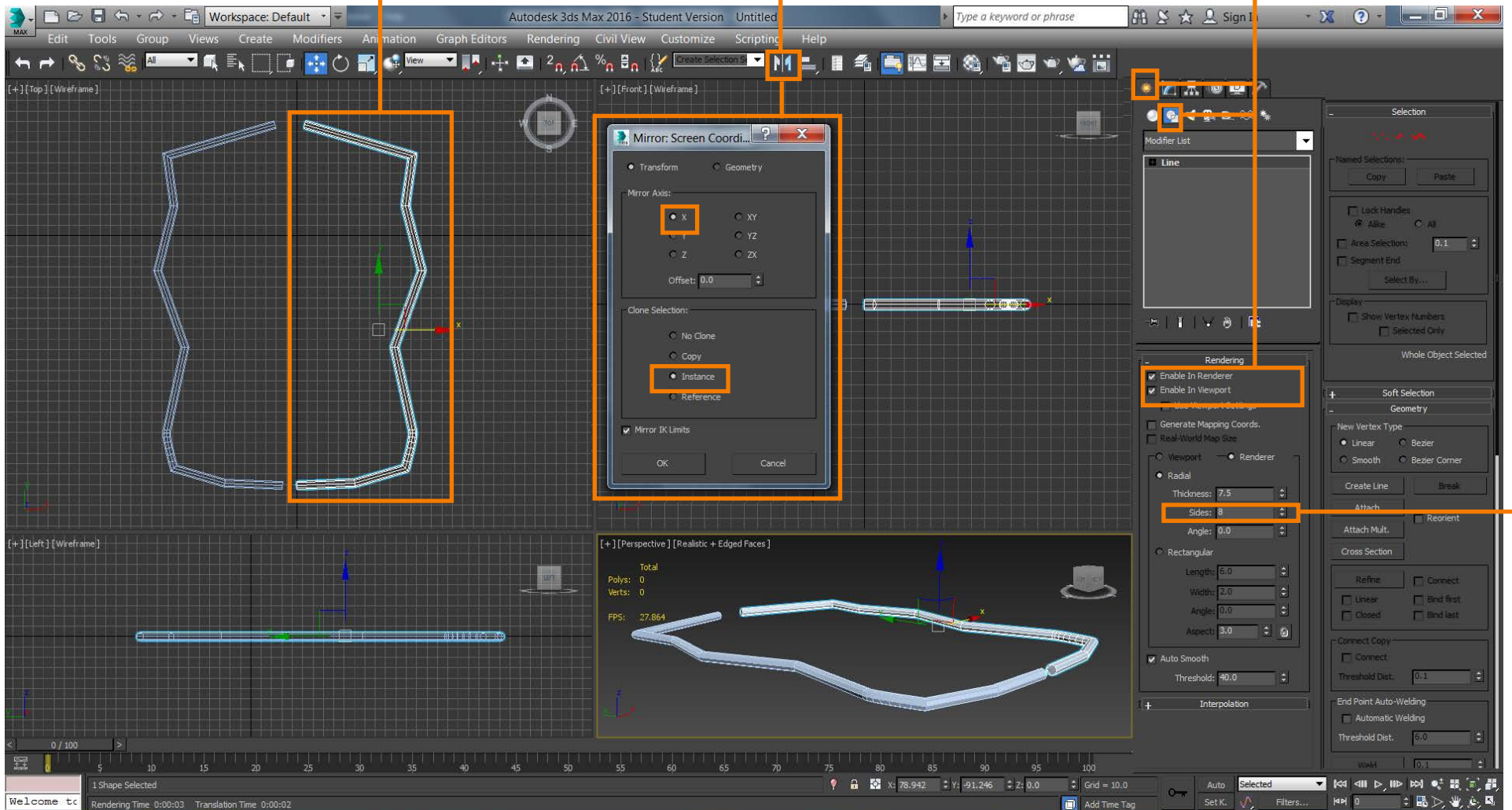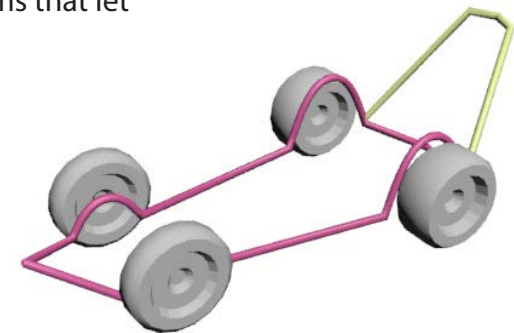
Shape the frame using the Sub Object Level

1.Right click on a vertex and choose "Bezier" This gives you control arms that let you shape the frame.

Fill-in the rest of your buggy with more lines to make a stable and believable structure. Be creative. Make your buggy look different.

More parts for your vehicle can be found on the Create Panel/Sub-Panel "Extended Primitives" and "Dynamic Objects".