Please PRINT your name _____

No calculators, cell phones, computers, notes, etc.

Circle your answer. Make your work correct, complete and coherent.
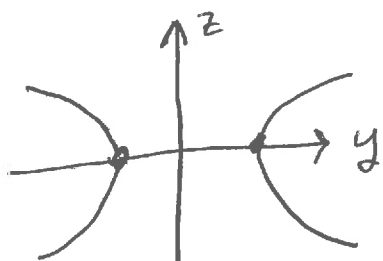
The quiz is worth 5 points. The solutions will be posted on my website later today.

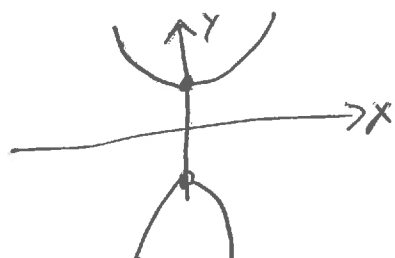## Quiz 8, Monday, October 5, 2020

Describe, graph, and name the graph of $y^2 - x^2 - z^2 = 1$ in 3-space.

Describe, graph, name $y^2 - x^2 - z^2 = 1$ in 3-space

when $x = 0$, the graph of $y^2 - z^2 = 1$ is a hyperbola

when $z = 0$, the graph of $y^2 - x^2 = 1$ is a hyperbola

There is no graph when $-1 < y < 1$

when $y = -1$ or $+1$, the graph is a point

when $y < -1$ or $1 < y$ is constant the graph is the circle

$$(constant)^2 - 1 = x^2 - z^2$$

Hyperboloid of 2 Sheets.

Draw the hyperbola $y^2 - z^2 = 1$ in the yz-Plane. Now rotate the picture about the y-axis