

Please PRINT your name \_\_\_\_\_

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

Circle your answer. Make your work correct, complete and coherent.

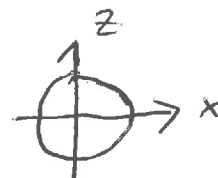
The quiz is worth 5 points. The solutions will be posted on my website later today.

### Quiz 9, February 19, 2020

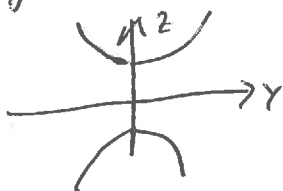
Which of the following pictures is the graph of

$$z^2 + x^2 - y^2 = 1.$$

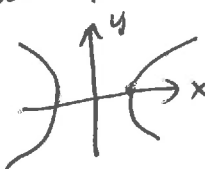
When  $y=0$ , the graph is a circle in the  $xz$  plane



When  $x=0$ , the graph is a hyperbola in the  $yz$  plane. Notice that  $y$  can be 0 but  $z$  can not be 0



When  $z=0$ , the graph is a hyperbola in the  $xy$  plane. Notice that  $x=1$  and  $y=0$  is on the graph but  $x$  can not be zero

 The graph is (2). A hyperboloid of one sheet.

The choices are on the next page.

# Quiz 9, February 19, 2020

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