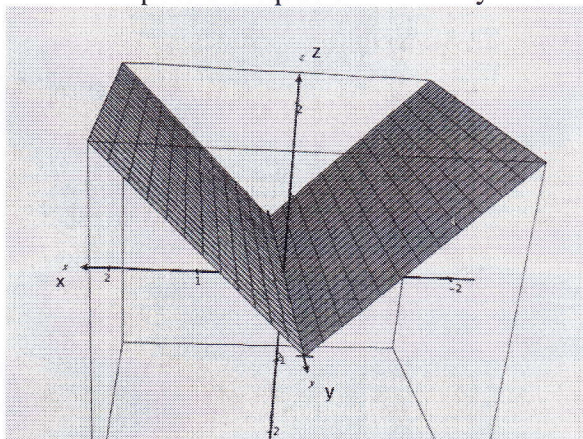


The Campus I plan to take my tests on is \_\_\_\_\_

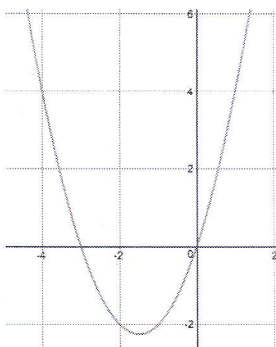
1. Give an example, in words, of any multi-variable function. Example: BMI (Body Mass Index) is a function of a person's height and weight.

2. Write a possible equation for the cylinder shown below:

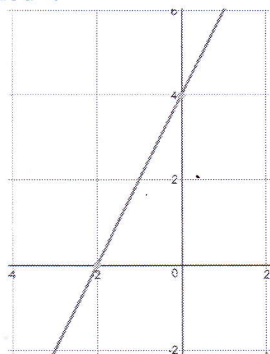


$z = |x|$   
stretched along the  
y-axis.

3. Consider the function  $f(x, y) = x^2 + xy$ . Cross sections of this function are shown below. Label each as either: "x-fixed" or "y-fixed".



y-fixed



x-fixed

4. Which of the following could be the contour diagram for  $z = f(x, y) = \sqrt[3]{y} - x$ ? See the next page. Just give the correct letter of your choice. You don't need to send the second page.

D

$$C = \sqrt[3]{y} - x$$

$$C + x = \sqrt[3]{y}$$

$$(x + C)^3 = y$$