## QUIZ 5 - MATH 111 YOUR NAME:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Suppose that you know that the quantities x, y and z are related by the equation

$$x\sqrt{y} - z = x\sqrt{z} + y. \tag{1}$$

(a) Write an expression giving x as a function of y and z, i.e., an expression of the form x(y, z).

(b) Write in functional notation x, given y = 4 and z = 9, and compute its value.

(c) Suppose that, given Equation (1), relating the physical quantities x, y, z, we found, by performing an experiment, that x = 3 and y = 4. Find the corresponding value of z. Show all your work.