

Extra Problem 2-C

A calculated parameter Z is related to two measured variables x and y by the following equation:

$$Z = \frac{2y^2}{x^3}$$

The variable y is measured to be 51.0 ± 1.6 , and the variable x is measured to be 4.15 ± 0.12 .

- a) What is the value and error of the parameter Z ?
- b) What is the relative error of the parameter Z ?
- c) Which variable contributes the most error to the calculation of Z ?