

Significance of significant figures journal:

Objective:

1. Determine if the use of significant figures is important in the business world.
2. Develop, perform, and document a procedure to solve the problem below.

Background:

You are a supplier of beans. You sell your beans to grocery stores in bags labeled 500g. You currently rent a scale, which measures the mass of the beans to be put into in each, with an accuracy of 1g. You are trying to find out if a scale that measures to an accuracy of a tenth of a gram or a one hundredth of a gram is worth the extra cost. The scale which measures to a tenth of a gram costs \$300 more and the one hundredth cost \$1000 more. You decide it is worth the extra investment if you can recoup the extra monthly rental amount in each month's sales. You sell an average of 600,000 kg of beans each month.

Procedure:

You must come up with a procedure to solve the above problem. You have two scales to work with. Be sure to do at least 5 trials to get an average for each scale accuracy amount. Be sure to show your data in a data table. Be sure to show calculations to back up your recommendations on whether to rent the new scales or not. One journal report may be turned in per group.