HOW TO DO FLEXIBLE ESTIMATION IN MATH

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Many people use estimation and rounding off everyday. They estimate or round off in temperature, time, age, height, weight, prices and other measurements. Well, not all use the words approximately, around, nearly, roughly or any word showing estimation. It is just assumed that a person has estimated or was given an estimate for something like the cost of what he/she will buy or need to get done. This means that rounding off and estimation is a skill which is utilized in our daily lives. These skills can solidify learning Math and the idea or reasonableness.

Estimation is an educated guess while rounding off is converting a known number into a number that is easier to use or remember. Often, rounding off is used to estimate the answers to math questions. Estimation, on the other hand, is used to check reasonableness of an answer. In estimation, one who has more intuitive skills can easily give estimation. However, a problem is posed in estimation when considering the rules for rounding off.

For example, the rule in rounding off is that you either keep the digit at the rounding place or round it up replacing the digits to the right with zeros. So, if you have 528, you will round it as 500 as you would base your decision on the 28 portion of the number. And since 28 is below 50, you have 500. That was easy, right? Now, what if you have 5379 divided by 62? The first question is which place number to round to? Say you decided to round to the nearest hundred in the first number and to the nearest ten for the second number, you now have 5400 divided by 60. To this, some would resort to a calculator, some to long division, while others might still stare confused at the paper where the numbers are written. For someone with a more intuitive mind, again, rounding to the nearest wholes can make computing easier.

Thus, an ability to estimate can be developed by both following and breaking rules of rounding. This skill is crucial to be taught to students so that they find an actual purpose of rounding off and not just a mere answering a question. Estimation can help students determine if an answer is reasonable or not. One method to do this is to teach students estimation by allowing them to break the rounding rules and find a simple question they can easily answer in their head. If it is finding an answer close to the real one, estimation is good a mathematical tool. But if you need an accurate and precise answer, of course, you can do the exact calculation for the numbers given.
References:

