Chapter 13: Using Computational Estimation with Whole Numbers  
Questioner

1. *What are the three types of estimation?*

* Measurement estimation

-Ex. “length of the room” or “weight of watermelon”

* Quantity estimation

-Ex. “number of jelly beans in a jar”

* Computational estimation

-an approximation of a computation that we can’t or don’t wish to determine exactly

1. Why is context so important for estimation? Does different context cause us to change how we estimate numbers?
2. *Why do you think the book makes a point to mention “Do not reward or emphasize the answer that is the closest. … Instead focus on whether the answers given are reasonable for the situation or problem at hand.”?*
3. *The book talks about how estimation is used in everyday life. It is especially prominent in rational numbers. Let’s see how fresh our estimation skills are.*

*I am at the store and find a jacket that was originally $120.50. There is a storewide sale going on and everything is 60% off. How much will this jacket cost me on sale?*

*What strategy did you use?*

*Bloom’s Taxonomy of Questions Regarding Computational Estimation*

|  |  |
| --- | --- |
| Knowledge | Is 400 a reasonable estimate for 438? |
| Comprehension | What do you think we could round 279 to? |
| Application | What is 438 + 279 to the closest hundreds? |
| Analysis | If we had 438 silver rocks and 279 yellow rocks about how many rocks do we have altogether? How did you get your approximate answer? |
| Synthesis | What is something you may use estimation in for real life? Come up with a problem using two things you would estimate. Solve the problem, and explain how you solved it using estimation. |
| Evaluation | If I have a five dollar bill and we bought a candy bar for $1.09 and a soda for $2.19, will I have enough to pay for the total amount? Do not use an exact total. Estimate in your head and then tell me what you did to get your answer. |