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| **“Where is Mr. Boehme?” Activity** |
| **Lesson Duration: 30 min.** |
| **OUTCOMES FROM ALBERTA PROGRAM OF STUDIES** |
| **General Learning Outcomes:**   * Decimal Operations   + GLO: Develop number sense (Number) |
| **Specific Learning Outcomes:**   * Decimal Operations   + SLO: N2. Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals to solve problems (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected). |
| **MATERIALS AND SETUP** |
| * Laptops |
| **PROCEDURE** |
| 1. **Where is Mr. Boehme Activity**  * Tell the class that Mr. Boehme has gone somewhere and that they are going to figure out where he went * Teach them about using estimation to add and subtract decimals (no calculators)   + Define overestimate and underestimate   + Teach them about front-end estimation and relative size     - Front-end estimation: using the leading digits and their place values       * E.g. 1234.56 + 2345.67 becomes 1000 + 2000       * Is this an overestimate or underestimate?     - Relative size: Estimate each number to the nearest number that is easy to work with       * E.g. 290.33 + 220.50 becomes 300 - 200       * Is this an overestimate or underestimate?   + Go through some examples with them of using both     - Make up some examples to do together and then for students to try on their own * “Where is Mr. Boehme?” activity   + Tell the students that Mr. Boehme had to go somewhere for the afternoon, so he couldn’t make it to class   + Tell them that I used Google maps to figure out how far it is, and these are the distances that it showed me (I used Stirling, AB as my starting point)     - 0.45 km     - 4.1 km     - 19.4 km     - 48.5 km     - 1.6 km   + Have them group up and use laptops to find out where I went |
| **REFLECTION** |
| The students did this activity while I was gone. They really enjoyed it! When I got back, I was impressed with how precise they were with their guesses. |