

**Instructions:** Show all work. Partial credit can only be given where work is shown. Be sure to answer all parts of each question. You may not use a calculator on this quiz.

1. In determining an evacuation zone, a scientist must estimate the distance that lava from an erupting volcano will flow. Should she overestimate or underestimate? Explain.
2. Find a range estimate for  $1349 \times 45$ .
3. Use the Russian peasant algorithm to find the product of  $44 \times 83$ .
4. Use a number line, and the repeated subtraction approach to find the dividend and remainder of  $42_{seven} \div 5_{seven}$ .