

Solutions

2.1 Half the rounding unit is 0.05. Lower bound = $3.4 - 0.05 = 3.35$.

2.2 Half of 10 is 5. Upper bound = $250 + 5 = 255$; the upper endpoint is excluded.

2.3 For positive d and t , the largest quotient uses the greatest d and least t : $105/20 = 5.25$.

3.1 False. With $8 \leq d < 9$ and $2 \leq t < 3$, $8.9/2 = 4.45$ exceeds $8.9/2.9 \approx 3.07$. Increase the numerator and decrease the positive denominator; distinguish a supremum from an attained maximum.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.