

Answer on Question #48571 – Math – Calculus

**Question.**

The relationship between the Fahrenheit and Celsius temperature scales is given by

$$C = \frac{5}{9}(F - 32).$$

If  $60 \leq F \leq 80$ , express the corresponding range for C in terms of an inequality.

$$^{\circ}\text{C} = \frac{5}{9}(^{\circ}\text{F} - 32)$$

$$60 \leq ^{\circ}\text{F} \leq 80$$

$$^{\circ}\text{C} = ?$$

**Solution.**

$$^{\circ}\text{F} = 60 \rightarrow ^{\circ}\text{C} = \frac{5}{9}(60 - 32) = \frac{140}{9} \approx 15.556 \approx 15.6$$

$$^{\circ}\text{F} = 80 \rightarrow ^{\circ}\text{C} = \frac{5}{9}(80 - 32) = \frac{240}{9} \approx 26.667 \approx 26.7$$

So,

if  $60 \leq ^{\circ}\text{F} \leq 80$ , then  $15.6 \leq ^{\circ}\text{C} \leq 26.7$

**Answer.**

$$15.6 \leq ^{\circ}\text{C} \leq 26.7$$