

**Answer on Question # 41472, Math, Algebra**

Convert the base-ten number to a number in the indicated base 2874 to base five, 200 to base six. Write the numeral base.

**Solution.**

$$\begin{aligned}2874 &= 5^4 \cdot 4 + 374 = \\&= 5^4 \cdot 4 + 5^3 \cdot 2 + 124 = \\&= 5^4 \cdot 4 + 5^3 \cdot 2 + 5^2 \cdot 4 + 24 = \\&= 5^4 \cdot 4 + 5^3 \cdot 2 + 5^2 \cdot 4 + 5 \cdot 4 + 4 = \\&= 4 \cdot 5^4 + 2 \cdot 5^3 + 4 \cdot 5^2 + 4 \cdot 5^1 + 4 \cdot 5^0\end{aligned}$$

$$\mathbf{2874 = 42444_{five}}$$

$$\begin{aligned}200 &= 6^2 \cdot 5 + 20 = \\&= 6^2 \cdot 5 + 6 \cdot 3 + 2 = \\&= 5 \cdot 6^2 + 3 \cdot 6^1 + 2 \cdot 6^0\end{aligned}$$

$$\mathbf{200 = 532_{six}}$$

**Answer:  $2874 = 42444_{five}$ ,  $200 = 532_{six}$**