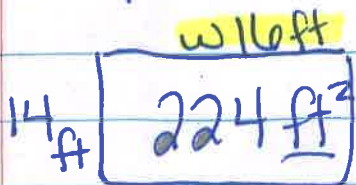


M2.L23 - Long Division

Application Problem

The perimeter of the room is 60 ft.



$$\begin{aligned} \text{Area} &= \text{length} \times \text{width} \quad (A = l \times w) \\ \text{Perimeter} &= 2 \cdot (\text{length} + \text{width}) \end{aligned}$$

$$\frac{224}{14} = \frac{14}{14} \times w$$

$$224 \div 14 = w$$

$\begin{array}{r} 14 \\ \times 6 \\ \hline 84 \\ \hline \end{array}$	$\begin{array}{r} 16 \\ 14 \overline{) 224} \\ \underline{-14} \downarrow \\ 84 \\ \underline{-84} \\ 0 \end{array}$	$\begin{array}{r} 16 \\ 14 \\ \hline 160 \\ \hline 224 \end{array}$
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$$\begin{aligned} P &= 2(l + w) \\ &= 2(14 + 16) \\ &= 2(30) \\ P &= 60 \text{ ft.} \end{aligned}$$



M2.L23-Long Division

Solve
 $215 \text{ r } 12$
 $29 \overline{) 6247}$
 $\underline{-58}$ ↓
 344
 $\underline{-29}$ ↓
 157
 $\underline{-145}$
 12

Work
 $62 \div 29 \approx$
 $60 \div 30 = 2$
 $\begin{array}{r} 29 \\ \times 2 \\ \hline 58 \end{array}$
 $\begin{array}{r} 29 \\ \times 5 \\ \hline 145 \end{array}$
 $157 \div 29 \approx$
 $150 \div 30 = 5$
 $30, 60, 90, 120, \underline{150}, 180$
 $\begin{array}{r} 215 \\ \times 29 \\ \hline 1935 \\ +4300 \\ \hline 6235 \\ + 12 \\ \hline 6247 \checkmark \end{array}$

Solve
 $82 \text{ r } 25$
 $52 \overline{) 4289}$
 $\underline{416}$ ↓
 129
 $\underline{-104}$
 25

Work
 $428 \div 52 \approx$ 52
 $400 \div 50 = 8$ $\begin{array}{r} \times 8 \\ \hline 416 \end{array}$
 $129 \div 52$ 52
 $100 \div 50 = 2$ $\begin{array}{r} \times 2 \\ \hline 104 \end{array}$
 $\begin{array}{r} 82 \\ \times 52 \\ \hline 164 \\ 4100 \\ \hline 4264 \\ + 25 \\ \hline 4289 \end{array}$

$$6649 \div 63$$

$$\begin{array}{r} 105 \text{ r } 34 \\ 63 \overline{) 6649} \text{ ✓} \\ \underline{- 63} \downarrow \\ 34 \\ \underline{- 0} \downarrow \\ 349 \\ \underline{- 315} \\ 34 \end{array}$$

$$349 \div 63 \approx 5$$
$$\underline{300} \div 60 = 5$$

$$\begin{array}{r} 63 \\ \times 5 \\ \hline 315 \end{array}$$

$$\begin{array}{r} 105 \\ \times 63 \\ \hline 315 \\ \underline{6300} \\ 6615 \\ + 34 \\ \hline 6649 \text{ ✓} \end{array}$$