Sub-Unit 1 | Summary

In this sub-unit . . .

- We multiplied three- and four-digit numbers by one-digit numbers using **partial products** strategies.

342 × 4

300 × 4 = 1,200
40 × 4 = 160
2 × 4 = 8

1,200 + 160 + 8 = 1,368

Math tip: Decomposing factors by place value helps you use partial products strategies.

- We learned how to use area models to determine products of 2 two-digit numbers.

87 × 64

	60	4
80	4,800	320
7	420	28

4,800 + 320 + 420 + 28 = 5,568

- We learned how to use the standard algorithm to multiply 2 two-digit numbers.

$$\begin{array}{r} {\scriptstyle 4\ \ } \\ {\scriptstyle 2\ \ } \\ 87 \\ \times\ \ 64 \\ \hline 348 \\ +\ 5,220 \\ \hline 5,568 \end{array}$$

In this sub-unit . . .

- We represented division story problems using equations and solved them using the relationship between multiplication and division.

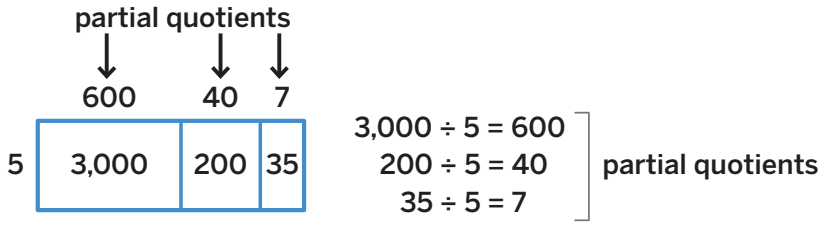
165 ÷ 5

5 × 20 = 100	100 ÷ 5 = 20
5 × 12 = 60	60 ÷ 5 = 12
5 × 1 = 5	5 ÷ 5 = 1
20 + 12 + 1 = 33	20 + 12 + 1 = 33

- We used area models and equations to represent **partial quotients**.

3,235 ÷ 5

(3,000 + 200 + 35) ÷ 5



600 + 40 + 7 = 647

3,235 ÷ 5 = 647

Math tip: Decompose the dividend into numbers that are easily divisible by the divisor.

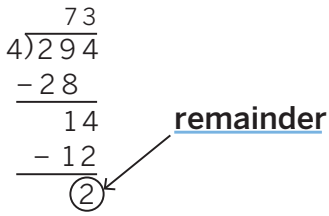
- We learned how to use the standard algorithm to divide three- and four-digit dividends by one-digit divisors.

$$\begin{array}{r} 93 \\ 5\overline{)465} \\ -45\downarrow \\ \hline 15 \\ -\ 15 \\ \hline 0 \end{array}$$

In this sub-unit . . .

- We learned that when dividing numbers, any amount left is called a **remainder**.

Maile is packing 294 lei into boxes. Each box can hold up to 4 lei.
How many boxes are needed to pack all the lei?

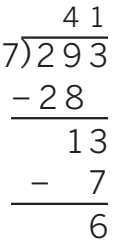


Maile needs 74 boxes to fit all the lei.

Math tip: The remainder should be less than the divisor. Otherwise, you can make more equal groups.

- We used the context of problems to determine what to do with the remainder.

There are 293 players signed up for a basketball league. The league wants to place 7 players on each team and distribute any leftover players to make some 8-player teams. Determine the number of 7- and 8-player teams.



293 divided by 7 is 41 with a remainder of 6.
35 teams will have 7 players. 6 teams will have 8 players

- We solved problems that required more than 1 step.

Pat's Lei Shop needs to ship 45 boxes of lei. Each box needs 3 cooling packets, and each cooling packet costs $9.

How much will the shop spend on cooling packets?

45 × 3
40 × 3 = 120
5 × 3 = 15
120 + 15 = 135
They need 135 cooling packets.

135 × 9
(100 × 9) + (30 × 9) + (5 × 9)
900 + 270 + 45 = 1,215
Pat's Lei Shop will spend $1,215 on cooling packets.