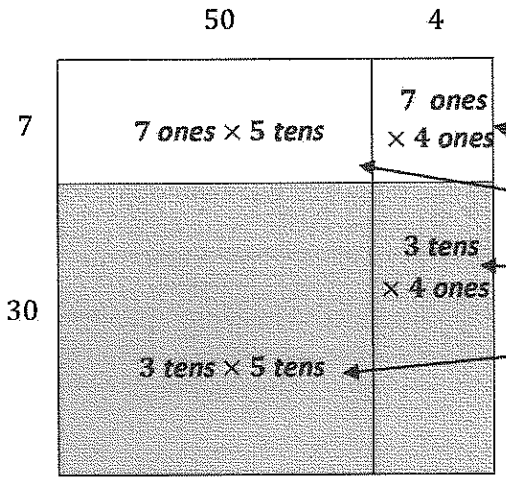
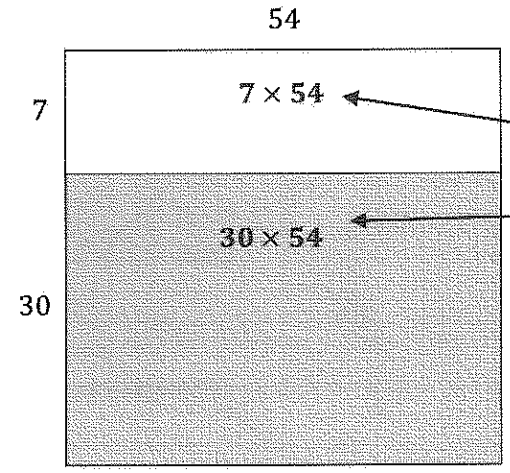
# G4-M3-Lesson 37

1. Solve 37 × 54 using 4 partial products and 2 partial products. Remember to think in terms of units as you solve. Write an expression to find the area of each smaller rectangle in the area model. Match each partial product to its area on the models.




$$\begin{array}{rrrrl} & & 5 & 4 & \\ \times & & 3 & 7 & \\ \hline & & 2 & 8 & 7 \text{ ones} \times 4 \text{ ones} \\ & 3 & 5 & 0 & 7 \text{ ones} \times 5 \text{ tens} \\ & 1 & 2 & 0 & 3 \text{ tens} \times 4 \text{ ones} \\ + & 1, & 5 & 0 & 0 \quad 3 \text{ tens} \times 5 \text{ tens} \\ \hline & 1, & 9 & 9 & 8 \end{array}$$

I solve using 4 partial products. This is just like what I did in Lesson 36.

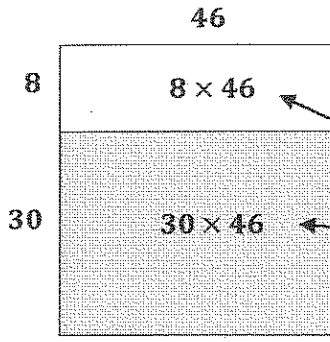



$$\begin{array}{rrrrl} & & 5 & 4 & \\ \times & & 3 & 7 & \\ \hline & & 3 & 7 & 8 \quad 7 \text{ ones} \times 54 \text{ ones} \\ + & 1, & 6 & 2 & 0 \quad 3 \text{ tens} \times 54 \text{ ones} \\ \hline & 1, & 9 & 9 & 8 \end{array}$$

To show 2 partial products, I combine the values of the top two rectangles, and I combine the values of the bottom two rectangles.

I know one partial product is represented by the white portion of the large rectangle. The other partial product is represented by the shaded portion.

2. Solve $38 \times 46$ using 2 partial products and an area model. Match each partial product to its area on the model.




$$\begin{array}{r} 46 \\ \times\ 38 \\ \hline 368 \\ +\ 1380 \\ \hline 1748 \end{array}$$

8 *ones* × 46 *ones*

3 *tens* × 46 *ones*

$$\begin{array}{r} 46 \\ \times\ 8 \\ \hline 368 \end{array} \qquad \begin{array}{r} 46 \\ \times\ 30 \\ \hline 180 \\ +\ 1200 \\ \hline 1380 \end{array}$$

I solve for the partial products, and then I find their sum.

3. Solve the following using 2 partial products. Visualize the area model to help you.

$$\begin{array}{r} 74 \\ \times\ 25 \\ \hline 370 \\ +\ 1480 \\ \hline 1850 \end{array}$$

$5 \times 74$

$20 \times 74$

$$\begin{array}{r} 74 \\ \times\ 5 \\ \hline 370 \end{array} \qquad \begin{array}{r} 74 \\ \times\ 20 \\ \hline 80 \\ +\ 1400 \\ \hline 1480 \end{array}$$

I visualize the 2 partial products of 5 ones × 74 and 2 tens × 74. I solve for the partial products and then find their sum.