

All-Partials Multiplication

For Questions 1–3, fill in the blank boxes to complete each multiplication problem using the all-partials method. Then write the missing side lengths and partial products into the rectangle to the right.

Example:

472	
× 8	
3200	← 8 × 400
560	← 8 × 70
16	← 8 × 2
3776	

8	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">400</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">70</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">2</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">3200</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">560</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">16</td> </tr> </table>	400	70	2	3200	560	16
400	70	2					
3200	560	16					

1.

515	
× 9	
□	← □ × □
□	← 10 × □
□	← □ × 9
□	

□	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">500</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">10</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">5</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">90</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> </tr> </table>	500	10	5	□	90	□
500	10	5					
□	90	□					

2.

238	
× 4	
□	← □ × □
□	← □ × □
□	← □ × □
□	

4	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">8</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">□</td> </tr> </table>	□	□	8	□	□	□
□	□	8					
□	□	□					

3.

	24	
	X	
×	12	
<hr/>		
<input type="text"/>	←	<input type="text"/> × <input type="text"/>
<input type="text"/>	←	<input type="text"/> × <input type="text"/>
<input type="text"/>	←	<input type="text"/> × <input type="text"/>
<input type="text"/>	←	<input type="text"/> × <input type="text"/>
<hr/>		
<input type="text"/>		

<input type="text"/>

20		<input type="text"/>
	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	8

For Questions 4–5, fill in the blank boxes to complete each multiplication problem using the all-partials method. Then show how to partition the rectangle to match the problem.

4.

	59	
	X	
×	96	
<hr/>		
<input type="text"/>		
<input type="text"/>		
<input type="text"/>		
<input type="text"/>		
<hr/>		
<input type="text"/>		

5.

	27	
	X	
×	88	
<hr/>		
<input type="text"/>		
<input type="text"/>		
<input type="text"/>		
<input type="text"/>		
<hr/>		
<input type="text"/>		