


**Read how each student solved 9 x 4**

**Write an Expression**

**Write a generalization**

	Read how each student solved 9 x 4	Write an Expression	Write a generalization
<b>Phillip</b>	<p>I broke 9 into 5 + 4 because I know the multiplication combinations... 4</p> $5 \times 4 = 20$ $4 \times 4 = 16$ <p>I added 20 and 16. 9</p> $20 + 16 = 36$ <p>So 9 x 4 is 36</p> 	$(5 \times 4) + (4 \times 4) = 9$	<p>In multiplication, factors can be broken into parts to multiply them, as long as each part of each number is multiplied by each part of the other number.</p>
<b>Elena</b>	<p>I know 10 x 4 is 40. To get 9 4s, I took away one 4. 40 - 4 = 36.</p> $10 \times 4 = 40$ $\underline{- 1 \times 4 = 4}$ <p>so 9 x 4 = 36</p>		
<b>Jung</b>	<p>I like to double.</p> <p>I know 9 x 2 is 18.</p> <p>I doubled 9 x 2 to get 9 x 4 = 36</p> $9 \times 2 = 18 \quad \rightarrow \quad 18 + 18 = 18 + 2 + 16$ $\underline{9 \times 2 = 18} \quad \downarrow \quad 20 + 6 = 36$ $9 \times 4 = 36$ <p>When Jung wanted to figure out 9 x 4, she began with 9 x 2 = 18. She realized this is exactly half of the answer and so she doubled 8 to get 36.</p>		
<b>Kenji</b>	<p>I know all my 4s.</p> <p>If 4 x 9 = 36 then 9 x 4 is also 36.</p>		