Unit 4, Lesson 9

Patterns in the Multiplication Table

Let's find patterns in the multiplication table and use them to multiply.

Warm-up

Notice and Wonder: Multiplication Table

What do you notice? What do you wonder?

×	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Activity 1

Products in the Table

Here is a partially completed multiplication table.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5					
2	2	4	6	8	10		A			
3	3	6	9	12	15				B	
4	4	8	12	16	20	C				
5	5	10	15	20	25			D		
6	6	12	18	24	30					E
7	7	14	21	28	35		F			
8	8	16	24	32	40	48			G	
9	9	18	27	36	45	54	63			
10	10	20	30	40	50	60	70	80		

1. Use the products in the table to help you find the numbers that should replace letters A–G. Be prepared to explain your reasoning.

2. Find the number that should go in 3 other empty cells in the table. Use:

   a. 7 as a factor

b. 9 as a factor

c. 10 as a factor

Be prepared to explain your reasoning.

Activity 2

If I Know, Then I Know: Multiplication

1. In each row, write at least 2 multiplication facts you can figure out because you know the given multiplication fact in the left column. Be prepared to share your reasoning.

If I know . . . ,	then I also know . . .
2×4	$4 \times 2, 4 \times 4, 2 \times 8$
3×5	
4×10	
7×2	
5×8	

2. If time permits, complete the rest of the multiplication table from the previous activity. Use the multiplication facts you know to find those you don't know.