Use What You Know to Multiply with 6, 7, and 8

Objective Use strategies to learn and memorize multiplication facts with 6, 7, and 8.

Learn by Example

The table shows the facts for 6, 7, and 8. The numbers in the yellow boxes show the facts you already know. The other numbers show the facts you still need to learn.

These are the facts you need to learn.

$6 \times 7 = 42$
$7 \times 6 = 42$

$6 \times 8 = 48$
$8 \times 6 = 48$

$7 \times 8 = 56$
$8 \times 7 = 56$

If you know the Commutative Property, you only need to learn 3 new facts.

×	0	1	2	3	4	5	6	7	8	9	10
0							0	0	0		
1							6	7	8		
2							12	14	16		
3							18	21	24		
4							24	28	32		
5							30	35	40		
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9							54	63	72		
10							60	70	80		

Here are some ways to help you learn these facts.

Different Ways to Multiply

Way 1   Use a fact you know.

$5 \times 7 = 35$
$\underline{+\ \ 7}$
$6 \times 7 = 42$

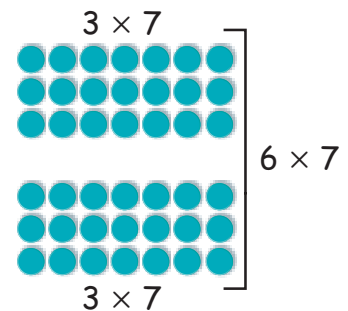**5 × 7 plus one more set makes 6 × 7, or 42**

Way 2   Use doubling.

6 is double 3, so 6×7 is double 3×7.

$3 \times 7 = 21$
$6 \times 7 = 21 + 21$
$21 + 21 = 42$, so $6 \times 7 = 42$.

3×7

3×7

6×7

▶ Guided Practice

Multiply.

1. 7
× 6

2. 6
× 8

3. 8
× 6

4. 7
× 8

5. Draw a picture to show how you can use doubling to find 8×6.

6. You know that $5 \times 8 = 40$. How can you use this fact to find 6×8?

Guided Problem Solving

Use the questions to solve this problem.

7. The city council voted to have a 6-day street fair. The fair goes on for 8 hours each day. How many hours long is the fair?

   a. Understand What do you know?

   b. Plan What are you trying to find? What operation can you use to find the answer?

   c. Solve Use your plan and write the answer. The fair lasted ◯ hours.

   d. Look Back Solve the problem in a different way. Did you get the same answer?

8. Look back at Problem 7. What if there was an 8-day street fair that lasted 6 hours each day? How many hours long would this fair be?

123 Math Talk Why is it useful to know that you can multiply factors in any order?