Strategies for Learning 100 Multiplication Facts

Understanding **turnarounds** in multiplication cuts the total number of facts to learn in half.
(If 7 x 4 = 28, then 4 x 7 = 28.) ***When you know one, you really know two!***

Easy Facts (90)

(15) **Picture 2s**

2 x (2, 3, 4, 5, 6, 7, 8, 9) ***Think of the picture clue to help.***

(13) **Clock 5s**

5 x (3, 4, 5, 6, 7, 8, 9) ***Think minutes after on a clock.***

(19) **Zeros**

(0 x n) or (n x 0) n=any number, 0 through 9. ***See x 0? Always answer 0.***

(17) **Ones**

(1 x n) or (n x 1) n=any number, 1 through 9. ***See x 1? Always answer "n".***

(11) **Pattern 9s**

9 x (3, 4, 6, 7, 8, 9) ***See x 9? Think of the pattern to help.***

(4) **Grade Facts**

12 = 3 x 4 (1st grade and 2nd grade come before 3rd grade and 4th grade.)
56 = 7 x 8 (5th grade and 6th grade come before 7th grade and 8th grade.)

(5) **Rhyming Facts**

6 x 4 is 24 6 x 6 is 36 6 x 8 is 48

(1) **Floor Fact**

8 x 8 is on the floor. Pick it up, it's 64.

(3) **Photo Facts**

3x3→ Think of a Tic-Tac-Toe board.
3x7→ Think of three full weeks on a calendar.

(2) **Don't Be Blue Fact**

6 x 7--Don't be blue. Turn me over I'm 42!

Harder Facts (10)

(9) **Break Apart Facts**

4 x (4, 7, 8); 6 x 3; 8 x 3. ***See an even factor? Do half, then double it.***

(1) **Last Fact**

One last fact is surely fine, 7 x 7 = 49!

Strategies for Learning 90 Division Facts

Partner facts are two related division facts that have the same whole (dividend) and the same factors. First, students master an easy group of division facts. Then, students can use these easier known facts to learn a new set of harder, unknown facts. (Example: 10 ÷ 2 = 5 and 10 ÷ 5 = 2) ***Same whole, same factors: good partners!***

Easy Facts (65)

(8) **Picture 2s**

(18, 16, 14, 12, 10, 8, 6, 4) ÷ 2 ***Think of the picture clue to help.***

(7) **Partners for Picture 2s**

18 ÷ 9, 16 ÷ 8, 14 ÷ 7, 12 ÷ 6, 10 ÷ 5, 8 ÷ 4, 6 ÷ 3

(7) **Clock 5s**

(45, 40, 35, 30, 25, 20, 15) ÷ 5 ***Think minutes after on a clock.***

(6) **Partners for Clock 5s**

45 ÷ 9, 40 ÷ 8, 35 ÷ 7, 30 ÷ 6, 20 ÷ 4, 15 ÷ 3

(6) **Pattern 9s**

(81, 72, 63, 54, 36, 27) ÷ 9 ***See ÷ 9? Think of the pattern to help.***

(5) **Partners for Pattern 9s**

72 ÷ 8, 63 ÷ 7, 54 ÷ 6, 36 ÷ 4, 27 ÷ 3

(9) **Ones**

(1, 2, 3, 4, 5, 6, 7, 8, 9) ÷ 1

(8) **Partner Facts**

n ÷ n = 1 (n = any number, 1 through 9)

(9) **Zeros**

0 ÷ n = 0 (n = any number, 1 through 9) ***There's nothing for anyone to share!***

Harder Facts (25)

(5) **Squares**

64 ÷ 8, 49 ÷ 7, 36 ÷ 6, 16 ÷ 4, 9 ÷ 3

(20) **Multiply to Help Facts**

(56, 48, 32, 24) ÷ 8 (56, 42, 28, 21) ÷ 7 (48, 42, 24, 18) ÷ 6

(32, 28, 24, 12) ÷ 4 (24, 21, 18, 12) ÷ 3