

x A

(1's and 10's)

ONES (x1)	
1 x 1 = 1	
1 x 2 = 2	2 x 1 = 2
1 x 3 = 3	3 x 1 = 3
1 x 4 = 4	4 x 1 = 4
1 x 5 = 5	5 x 1 = 5
1 x 6 = 6	6 x 1 = 6
1 x 7 = 7	7 x 1 = 7
1 x 8 = 8	8 x 1 = 8
1 x 9 = 9	9 x 1 = 9
1 x 10 = 10	10 x 1 = 10
TENS (x10)	
10 x 1 = 10	1 x 10 = 10
10 x 2 = 20	2 x 10 = 20
10 x 3 = 30	3 x 10 = 30
10 x 4 = 40	4 x 10 = 40
10 x 5 = 50	5 x 10 = 50
10 x 6 = 60	6 x 10 = 60
10 x 7 = 70	7 x 10 = 70
10 x 8 = 80	8 x 10 = 80
10 x 9 = 90	9 x 10 = 90
10 x 10 = 100	

Commutative (Order) Property

of Multiplication: Numbers can be multiplied in any order and the product will be the same.

Ex. $3 \times 4 = 4 \times 3$

Identity (One) Property of Multiplication:

The product of any number & 1 is that number.

Ex. $9 \times 1 = 9$

Zero Property of Multiplication:

The product of any number & zero is zero.

Ex. $7 \times 0 = 0$

x B

(2's and 5's)

* = previously learned fact

TWOS (x2)	
*2 x 1 = 2	*1 x 2 = 2
2 x 2 = 4	
2 x 3 = 6	3 x 2 = 6
2 x 4 = 8	4 x 2 = 8
2 x 5 = 10	5 x 2 = 10
2 x 6 = 12	6 x 2 = 12
2 x 7 = 14	7 x 2 = 14
2 x 8 = 16	8 x 2 = 16
2 x 9 = 18	9 x 2 = 18
*2 x 10 = 20	*10 x 2 = 20
FIVES (x5)	
*5 x 1 = 5	*1 x 5 = 5
5 x 2 = 10	2 x 5 = 10
5 x 3 = 15	3 x 5 = 15
5 x 4 = 20	4 x 5 = 20
5 x 5 = 25	5 x 5 = 25
5 x 6 = 30	6 x 5 = 30
5 x 7 = 35	7 x 5 = 35
5 x 8 = 40	8 x 5 = 40
5 x 9 = 45	9 x 5 = 45
*5 x 10 = 50	*10 x 5 = 50

Commutative (Order) Property

of Multiplication: Numbers can be multiplied in any order and the product will be the same.

Ex. $3 \times 4 = 4 \times 3$

Patterns for 2's facts:

- multiples of 2 are even numbers
- multiples of 2 end in 0, 2, 4, 6, 8
- any # multiplied by 2 is doubled

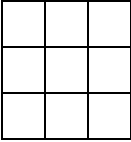
Patterns for 5's facts:

- multiples of 5 end in 0 or 5
- use the numbers on the clock to help you remember these facts

x C

(squares and 9's)

* = previously learned fact

SQUARES (DOUBLES)	
*1 x 1 = 1	<p>In multiplication, the doubles are called "squares". This is because their array forms a perfect square. Ex. 3 x 3 = 9</p> 
*2 x 2 = 4	
3 x 3 = 9	
4 x 4 = 16	
*5 x 5 = 25	
6 x 6 = 36	
7 x 7 = 49	
8 x 8 = 64	
9 x 9 = 81	
*10 x 10 = 100	
NINES (x9)	
*9 x 1 = 9	*1 x 9 = 9
*9 x 2 = 18	*2 x 9 = 18
9 x 3 = 27	3 x 9 = 27
9 x 4 = 36	4 x 9 = 36
*9 x 5 = 45	*5 x 9 = 45
9 x 6 = 54	6 x 9 = 54
9 x 7 = 63	7 x 9 = 63
9 x 8 = 72	8 x 9 = 72
9 x 9 = 81	
*9 x 10 = 90	*10 x 9 = 90

Commutative (Order) Property

of Multiplication: Numbers can be multiplied in any order and the product will be the same.

Ex. $3 \times 4 = 4 \times 3$

$$3 \times 9 = 27$$

Tricks to learning 9's:

- Count your fingers



- Add the digits of the product together and the sum is 9.

Ex. $3 \times 9 = 27$ $2 + 7 = 9$

x D

(3's and 6's)

* = previously learned fact

THREES (x3)	
*3 x 1 = 3	*1 x 3 = 3
*3 x 2 = 6	*2 x 3 = 6
*3 x 3 = 9	
3 x 4 = 12	4 x 3 = 12
*3 x 5 = 15	*5 x 3 = 15
3 x 6 = 18	6 x 3 = 18
3 x 7 = 21	7 x 3 = 21
3 x 8 = 24	8 x 3 = 24
*3 x 9 = 27	*9 x 3 = 27
*3 x 10 = 30	*10 x 3 = 30
SIXES (x6)	
*6 x 1 = 6	*1 x 6 = 6
*6 x 2 = 12	*2 x 6 = 12
6 x 3 = 18	3 x 6 = 18
6 x 4 = 24	4 x 6 = 24
*6 x 5 = 30	*5 x 6 = 30
*6 x 6 = 36	
6 x 7 = 42	7 x 6 = 42
6 x 8 = 48	8 x 6 = 48
*6 x 9 = 54	*9 x 6 = 54
*6 x 10 = 60	*10 x 6 = 60

Commutative (Order) Property

of Multiplication: Numbers can be multiplied in any order and the product will be the same.

Ex. $3 \times 4 = 4 \times 3$

Tricks to learning 6's:

- "Double the double" Ex. $6 \times 4 = 24$
Once you know the 3's, then double the product to help you solve the 6's.

Ex. $3 \times 4 = 12$ so $6 \times 4 =$ the double of $12 = 24$

X E

(4's and 8's)

* = previously learned fact

Now that you know steps A - E, you have already learned your 7's! Look below:

* = previously learned fact

FOURS (x4)	
*4 × 1 = 4	*1 × 4 = 4
*4 × 2 = 8	*2 × 4 = 8
*4 × 3 = 12	*3 × 4 = 12
*4 × 4 = 16	
*4 × 5 = 20	*5 × 4 = 20
*4 × 6 = 24	*6 × 4 = 24
4 × 7 = 28	7 × 4 = 28
4 × 8 = 32 ← →	8 × 4 = 32
*4 × 9 = 36	*9 × 4 = 36
*4 × 10 = 40	*10 × 4 = 40
EIGHTS (x8)	
*8 × 1 = 8	*1 × 8 = 8
*8 × 2 = 16	*2 × 8 = 16
*8 × 3 = 24	*3 × 8 = 24
8 × 4 = 32 ← →	4 × 8 = 32
*8 × 5 = 40	*5 × 8 = 40
*8 × 6 = 48	*6 × 8 = 48
8 × 7 = 56	7 × 8 = 56
*8 × 8 = 64	
*8 × 9 = 72	*9 × 8 = 72
*8 × 10 = 80	*10 × 8 = 80

SEVENS (x7)	
7 × 1 = 7 *1 × 7 = 7	Step A
7 × 2 = 14 *2 × 7 = 14	Step B
7 × 3 = 21 *3 × 7 = 21	Step D
7 × 4 = 28 *4 × 7 = 28	Step E
7 × 5 = 35 *5 × 7 = 35	Step B
7 × 6 = 42 *6 × 7 = 42	Step D
*7 × 7 = 49	Step C
7 × 8 = 56 *8 × 7 = 56	Step E
7 × 9 = 63 *9 × 7 = 63	Step C
7 × 10 = 70 *10 × 7 = 70	Step A

Commutative (Order) Property

of Multiplication: Numbers can be multiplied in any order and the product will be the same.

Ex. 3 × 4 = 4 × 3

Tricks to learning 4's and 8's:

- "Double the double" Ex. 4 × 6 = 24
If you know the double of 6 is 12, then double the 12 to get 24.

Once you know the 4's, then double the product to help you solve the 8's.

Ex. 4 × 3 = 12 so 8 × 3 = the double of 12 = 24