

# Addition Facts Made Easy

+	0	1	2	3	4	5	6	7	8	9
0	Dbl									
1	Z	Dbl								
2	Z	1+	Dbl							
3	Z	1+	2+	Dbl						
4	Z	1+	2+	<b>4+3</b>	Dbl					
5	Z	1+	2+	<b>5+3</b>	<b>5+4</b>	Dbl				
6	Z	1+	2+	<b>6+3</b>	X	<b>6+5</b>	Dbl			
7	Z	1+	2+	X	<b>7+4</b>	<b>7+5</b>	<b>7+6</b>	Dbl		
8	Z	1+	X	<b>8+3</b>	<b>8+4</b>	<b>8+5</b>	<b>8+6</b>	<b>8+7</b>	Dbl	
9	Z	X	9+	9+	9+	9+	9+	9+	9+	Dbl

## Reducing 100 Addition Facts to Thirteen Focus Practice Facts

<input type="checkbox"/>	Commutative facts (i.e. $3+4=4+3$ ) (the unmarked areas above)
<input checked="" type="checkbox"/>	(Z) Facts with zero (i.e. $0+2, 0+3$ )
<input checked="" type="checkbox"/>	(1+ and 2+) One more than and two more than a number (i.e. $8+1, 2+8$ )
<input checked="" type="checkbox"/>	(Dbl) Doubles (i.e. $2+2, 5+5$ )
<input checked="" type="checkbox"/>	(9+) Facts with nine (i.e. $9+3, 9+6$ )
<input checked="" type="checkbox"/>	(X) Facts that make ten (i.e. $7+3, 4+6$ )
<b>BOLD</b> are focus practice facts. Think about the 13 remaining facts. How can you develop an understanding and instant recall of these facts?	

+	0	1	2	3	4	5	6	7	8	9
0	<b>0</b>	1	2	3	4	5	6	7	8	<b>9</b>
1	<b>1</b>	2	3	4	5	6	7	8	9	<b>10</b>
2	<b>2</b>	3	4	5	6	7	8	9	10	<b>11</b>
3	<b>3</b>	4	5	6	7	8	9	10	11	<b>12</b>
4	<b>4</b>	5	6	7	8	9	10	11	12	<b>13</b>
5	<b>5</b>	6	7	8	9	10	11	12	13	<b>14</b>
6	<b>6</b>	7	8	9	10	11	12	13	14	<b>15</b>
7	<b>7</b>	8	9	10	11	12	13	14	15	<b>16</b>
8	<b>8</b>	9	10	11	12	13	14	15	16	<b>17</b>
9	<b>9</b>	10	11	12	13	14	15	16	17	<b>18</b>

## Multiplication Facts Made Easy (through the 10's)

x	1	2	3	4	5	6	7	8	9	10
1	S	S	S							
2	S	S	S							
3	S	S	S							
4	1	Dbl	<b>3 x 4</b>	□						
5	1	Dbl	V	V	□					
6	1	Dbl	<b>3 x 6</b>	<b>4 x 6</b>	V	□				
7	1	Dbl	<b>3 x 7</b>	<b>4 x 7</b>	V	<b>6 x 7</b>	□			
8	1	Dbl	<b>3 x 8</b>	<b>4 x 8</b>	V	<b>6 x 8</b>	<b>7 x 8</b>	□		
9	1	Dbl	<b>3 x 9</b>	<b>4 x 9</b>	V	<b>6 x 9</b>	<b>7 x 9</b>	<b>8 x 9</b>	□	
10	X	X	X	X	X	X	X	X	X	X

## Reducing 100 Multiplication Facts to 15 Focus Practice Facts

Think about Commutativity: Commutative Law states that  $3 \times 5$  and  $5 \times 3$  have the same product (the unmarked areas above)

(S) Think about the short table (1x1 through 3x3): Are any of these difficult for you?

(1x) Think about 1x: One times the number equals the number

(Dbl) Think about 2x: Two times a number (double the number i.e.  $2 \times 3$ ,  $5 \times 2$ )

Think about Squares: The number times itself ( $6 \times 6$ )

(V) Think about 5x: Five times a number (think of a clock) ( $5 \times 4$ )

(X) Think about 10x: Ten times a number equals the number and a zero ( $9 \times 10$ )

**BOLD** are focus practice facts. Think about the 15 remaining facts. How can you develop an understanding and instant recall of these facts?

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

# Multiplication Facts Made Easy (through the 12's)

x	1	2	3	4	5	6	7	8	9	10	11	12
1	S	S	S									
2	S	S	S									
3	S	S	S									
4	1	Dbl	3 x 4	■								
5	1	Dbl	V	V	■							
6	1	Dbl	3 x 6	4 x 6	V	■						
7	1	Dbl	3 x 7	4 x 7	V	6 x 7	■					
8	1	Dbl	3 x 8	4 x 8	V	6 x 8	7 x 8	■				
9	1	Dbl	3 x 9	4 x 9	V	6 x 9	7 x 9	8 x 9	■			
10	1	Dbl	X	X	V	X	X	X	X	■		
11	1	Dbl	XI	XI	V	XI	XI	XI	XI	X	■	
12	1	Dbl	12 x 3	12 x 4	12 x 5	12 x 6	12 x 7	12 x 8	12 x 9	X	12 x 11	12 x 12

## Reducing 144 Multiplication Facts to 24 Focus Practice Facts

<input type="checkbox"/>	Think about Commutativity: Commutative Law states that $3 \times 5$ and $5 \times 3$ have the same product (the unmarked areas above)
<input checked="" type="checkbox"/>	(S) Think about the short table (1x1 through 3x3): Are any of these difficult for you?
<input checked="" type="checkbox"/>	(1x) Think about 1x: One times the number equals the number
<input checked="" type="checkbox"/>	(Dbl) Think about 2x: Two times a number (double the number i.e. $2 \times 3$ , $5 \times 2$ )
<input checked="" type="checkbox"/>	Think about Squares: The number times itself ( $6 \times 6$ )
<input checked="" type="checkbox"/>	(V) Think about 5x: Five times a number (think of a clock) ( $5 \times 4$ ).
<input checked="" type="checkbox"/>	(X) Think about 10x: Ten times a number equals the number and a zero ( $9 \times 10$ )
<input checked="" type="checkbox"/>	(XI) Think about 11x: Eleven times a number equals the number in the tens and the ones places ( $7 \times 11$ )
<b>BOLD</b> are focus practice facts. Think about the 24 remaining facts. How can you develop an understanding and instant recall of these facts?	

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144