

# MULTIPLICATION CHART

×	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
3	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
4	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64
5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
6	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
7	0	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112
8	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128
9	0	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144
10	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
11	0	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176
12	0	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192
13	0	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208
14	0	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224
15	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240
16	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256

**A B Cron** {Notice diagonal of perfect squares, be familiar with these values, too.}

Knowing these tables well is highly recommended for Algebra success!

## Signed Number Arithmetic (aka, Integers and Real Numbers)

### Addition

Signs alike—add numbers and keep sign

$$(+)+(+)=(+)$$

$$(-)+(-)=(-)$$

Signs different—subtract numbers and use sign of number furthest from zero, 0.

$$\left. \begin{array}{l} (+)-(-) \\ (-)-(+) \end{array} \right\} \text{resulting sign depends on greater absolute value.}$$

### Subtraction

Change all subtraction problems to an equivalent addition problem, follow addition rules.

$$a - b = a + (-b)$$

### Multiplication and Division

If the signs of the factors or the dividend and divisor are the same, result is positive.

$$(+)(+)=(+)$$

$$(-)(-)=(+)$$

If the signs of the factors or the dividend and divisor are different, result is negative.

$$(+)(-)=(-)$$

$$(-)(+)=(-)$$