

3. [× Whole Numbers to 12]

Skill 3.1 Multiplying whole numbers from 1 to 12.

MMBlue 11 22 33 44
MMGreen 11 22 33 44

Q.

	3	9	12	5	6	8	4	10	11	7
× 9										

In this table, multiply each of the numbers in the top row by 9. Write the results in the empty spaces under each number.

A.

	3	9	12	5	6	8	4	10	11	7
× 9	27	81	108	45	54	72	36	90	99	63

MULTIPLICATION TABLE

×	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

Use a multiplication table

The numbers to be multiplied are in the top row and the left hand side column. The products of these numbers are in the corresponding intersecting spaces.

To multiply 3 by 9, move down the column from 3 until you reach the row starting with 9.

This shows that the product of 3 and 9 is 27.

$$3 \times 9 = 9 \times 3 = 27$$

Since $3 \times 9 = 9 \times 3 = 27$, multiplication tables are symmetrical.

This means you only need to learn half of your times tables.

a)

	11	5	6	3	8	7	4	12	9	2
× 6	66	30								

b)

	4	3	8	7	12	5	1	9	6	10
× 5	20									

c)

	6	8	10	11	5	4	2	7	1	9
× 10										

d)

	7	3	12	2	10	6	9	5	8	4
× 4										

e)

	2	7	9	10	4	8	5	3	6	11
× 8										

Q.

	-3	-9	-2	5	-6	8	4	-10	11	-7
× 6										

In this table, multiply each of the numbers in the top row by 6. Write the results in the empty spaces under each number.

A.

	-3	-9	-2	5	-6	8	4	-10	11	-7
× 6	-18	-54	-12	30	-36	48	24	-60	66	-42

MULTIPLICATION TABLE

×	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

Use a multiplication table

The numbers to be multiplied are in the top row and the left hand side column. The products of these numbers are in the corresponding intersecting spaces.

To multiply negative 3 by 6, first ignore the signs. Move down the column from 3 until you reach the row starting with 6. This shows that the product of 3 and 6 is 18.

$$3 \times 6 = 6 \times 3 = 18$$

Then learn and apply this rule:

When multiplying a negative number by a positive number, the result is always negative.

$$-3 \times 6 = -18$$

a)

	-4	12	6	-9	-10	3	-5	8	-7	1
× 11	-44	132								

b)

	-7	9	4	8	-2	5	-11	3	-6	10
× 3	-21									

c)

	8	-5	-3	6	-12	2	7	-9	10	4
× 7										

d)

	-12	3	-7	9	10	-6	11	-5	4	8
× 12										

e)

	-2	8	-11	12	3	-7	-5	4	6	-9
× 9										