

# TIMES TABLES

## A A TOOL FOR FAST MULTIPLICATION

### Definition Times Table

A **times table** is a helpful chart that shows the results of multiplying a number by other numbers (usually from 0 to 10). Each number has its own times table.

**Ex:** Use the times table for 4 to calculate  $4 \times 9$ .

$$\begin{aligned}4 \times 0 &= 0 \\4 \times 1 &= 4 \\4 \times 2 &= 8 \\4 \times 3 &= 12 \\4 \times 4 &= 16 \\4 \times 5 &= 20 \\4 \times 6 &= 24 \\4 \times 7 &= 28 \\4 \times 8 &= 32 \\4 \times 9 &= 36 \\4 \times 10 &= 40\end{aligned}$$

*Answer:* Looking at the times table for 4, we can find the line for  $4 \times 9$  and see that the answer is 36.

## B REVIEWING OUR FIRST TIMES TABLES

### Proposition Tables of 2, 3, 4, 5, and 10

$2 \times 0 = 0$	$3 \times 0 = 0$	$4 \times 0 = 0$	$5 \times 0 = 0$	$10 \times 0 = 0$
$2 \times 1 = 2$	$3 \times 1 = 3$	$4 \times 1 = 4$	$5 \times 1 = 5$	$10 \times 1 = 10$
$2 \times 2 = 4$	$3 \times 2 = 6$	$4 \times 2 = 8$	$5 \times 2 = 10$	$10 \times 2 = 20$
$2 \times 3 = 6$	$3 \times 3 = 9$	$4 \times 3 = 12$	$5 \times 3 = 15$	$10 \times 3 = 30$
$2 \times 4 = 8$	$3 \times 4 = 12$	$4 \times 4 = 16$	$5 \times 4 = 20$	$10 \times 4 = 40$
$2 \times 5 = 10$	$3 \times 5 = 15$	$4 \times 5 = 20$	$5 \times 5 = 25$	$10 \times 5 = 50$
$2 \times 6 = 12$	$3 \times 6 = 18$	$4 \times 6 = 24$	$5 \times 6 = 30$	$10 \times 6 = 60$
$2 \times 7 = 14$	$3 \times 7 = 21$	$4 \times 7 = 28$	$5 \times 7 = 35$	$10 \times 7 = 70$
$2 \times 8 = 16$	$3 \times 8 = 24$	$4 \times 8 = 32$	$5 \times 8 = 40$	$10 \times 8 = 80$
$2 \times 9 = 18$	$3 \times 9 = 27$	$4 \times 9 = 36$	$5 \times 9 = 45$	$10 \times 9 = 90$
$2 \times 10 = 20$	$3 \times 10 = 30$	$4 \times 10 = 40$	$5 \times 10 = 50$	$10 \times 10 = 100$

## C THE 6S TIMES TABLE

### Proposition Times Table of 6

$6 \times 0 = 0$	$0 \times 6 = 0$
$6 \times 1 = 6$	$1 \times 6 = 6$
$6 \times 2 = 12$	$2 \times 6 = 12$
$6 \times 3 = 18$	$3 \times 6 = 18$
$6 \times 4 = 24$	$4 \times 6 = 24$
$6 \times 5 = 30$	$5 \times 6 = 30$
$6 \times 6 = 36$	$6 \times 6 = 36$
$6 \times 7 = 42$	$7 \times 6 = 42$
$6 \times 8 = 48$	$8 \times 6 = 48$
$6 \times 9 = 54$	$9 \times 6 = 54$
$6 \times 10 = 60$	$10 \times 6 = 60$

## D THE 7S TIMES TABLE

### Proposition Times Table of 7

$7 \times 0 = 0$	$0 \times 7 = 0$
$7 \times 1 = 7$	$1 \times 7 = 7$
$7 \times 2 = 14$	$2 \times 7 = 14$
$7 \times 3 = 21$	$3 \times 7 = 21$
$7 \times 4 = 28$	$4 \times 7 = 28$
$7 \times 5 = 35$	$5 \times 7 = 35$
$7 \times 6 = 42$	$6 \times 7 = 42$
$7 \times 7 = 49$	$7 \times 7 = 49$
$7 \times 8 = 56$	$8 \times 7 = 56$
$7 \times 9 = 63$	$9 \times 7 = 63$
$7 \times 10 = 70$	$10 \times 7 = 70$

## E THE 8S TIMES TABLE

### Proposition Times Table of 8

$8 \times 0 = 0$	$0 \times 8 = 0$
$8 \times 1 = 8$	$1 \times 8 = 8$
$8 \times 2 = 16$	$2 \times 8 = 16$
$8 \times 3 = 24$	$3 \times 8 = 24$
$8 \times 4 = 32$	$4 \times 8 = 32$
$8 \times 5 = 40$	$5 \times 8 = 40$
$8 \times 6 = 48$	$6 \times 8 = 48$
$8 \times 7 = 56$	$7 \times 8 = 56$
$8 \times 8 = 64$	$8 \times 8 = 64$
$8 \times 9 = 72$	$9 \times 8 = 72$
$8 \times 10 = 80$	$10 \times 8 = 80$

## F THE 9S TIMES TABLE

### Proposition Times Table of 9

$9 \times 0 = 0$	$0 \times 9 = 0$
$9 \times 1 = 9$	$1 \times 9 = 9$
$9 \times 2 = 18$	$2 \times 9 = 18$
$9 \times 3 = 27$	$3 \times 9 = 27$
$9 \times 4 = 36$	$4 \times 9 = 36$
$9 \times 5 = 45$	$5 \times 9 = 45$
$9 \times 6 = 54$	$6 \times 9 = 54$
$9 \times 7 = 63$	$7 \times 9 = 63$
$9 \times 8 = 72$	$8 \times 9 = 72$
$9 \times 9 = 81$	$9 \times 9 = 81$
$9 \times 10 = 90$	$10 \times 9 = 90$

## G THE FULL MULTIPLICATION GRID

### Proposition All Times Tables from 1 to 10

This grid is a powerful tool that shows all the times tables from 1 to 10 in one place. To find the answer to a problem like  $7 \times 8$ , find the row for 7 and the column for 8, and see where they meet!

×	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