Multiplication

MNU 3-03a I can use a variety of methods to solve number problems in familiar contexts, clearly communicating my process and solutions.

Pupils are taught to understand multiplication as repeated addition and scaling. It can also describe an array, for example the grid method.

Friendly Numbers

9 x 15

10 x 15 = 150
150—15 = 135

Partial Products

6 x 125
6 x (100 + 20 +5)

(6x100) + (6x20) + (6x5)
600 + 120 + 30
= 750

Breaking into factors

12 x 25

2 x 6 x 25
2 x 25 = 50
50 x 6 = 300

Repeated Addition

6 x 15
15+15+15+15+15+15
15+15 = 30
30+15 = 45
45+15 = 60
60 + 15 = 75
75 + 15 = 90

Doubling and Halving

24 x 8

x2 ÷2

48 x 4

x2 ÷2

96 x 2
= 192

Written Sum

137 x 4

137
x 4
548
1 2

Grid Method

35 x 7

X	30	5
7	210	35

210 + 35 = 245

Multiplication Grid

MNU 3-03b I can continue to recall number facts quickly and use them accurately when making calculations.

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