Progression in Multiplication calculations

M1: Groups of objects or pictures


2 groups of 5 counters makes 10 counters altogether

M2: Repeated addition


[^0]
## M3: Arrays



$$
3 \times 5=15 \text { or } 5 \times 3=15
$$

M4: Partitioning

| 1 | 5 | $x$ | 5 | $=$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 0 | $x$ | 5 | $=$ | 5 | 0 |
|  | 5 | $x$ | 5 | $=$ | 2 | 5 |
|  |  |  |  |  | 7 | 5 |

M5: Column multiplication

|  | $H$ | $T$ | $U$ |
| :---: | :---: | :---: | :---: |
|  | 1 | 4 | 7 |
| $X$ |  |  | 4 |
|  | 5 | 8 | 8 |
|  | 1 | 2 |  |

M6: Long multiplication

|  | Th | $H$ | $T$ | $U$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | 4 | 3 |  |  |
| $X$ |  |  | 6 | 5 |  |  |
|  |  | 2 | 1 | 5 | $(43 \times 5)$ |  |
|  |  |  | 1 |  |  |  |
|  | 2 | 5 | 8 | 0 | $(43 \times 60)$ |  |
|  |  | 1 |  |  |  |  |
|  | 2 | 7 | 9 | 5 |  |  |


[^0]:    $5 \times 3=5+5+5=15$

