

Maths - Year 5

Calculating 12: Written methods for multiplying

Key Vocabulary

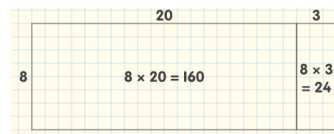
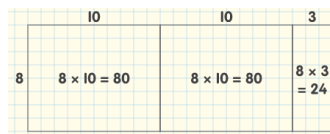
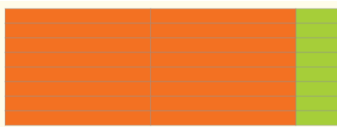
Carrying/ regrouping	Transferring digits from one place value column to another to support calculating.
Short written method	Written method for recording multiplying calculations when multiplying by a number with one digit.
Long written method	Written method for recording multiplying calculations when multiplying by a number with two or more digits.

Mathematical Skills

- Describe the steps involved in the short method of multiplying.
- Describe the steps involved in the long method of multiplying.
- Multiply to solve problems in the context of measures.

Mathematical Methods

- Understanding the short written method of multiplying for TO x O and HTO x O e.g. 23×8



$$\begin{array}{r} 23 \\ \times 8 \\ \hline 184 \\ \hline 2 \end{array}$$

- Multiplying in measuring contexts (HTO x O) e.g. $345 \times 7m$.

$$\begin{array}{r} \times 300 \quad 40 \quad 5 \\ 7 \quad 2100 \quad 280 \quad 35 \end{array} \quad 2100 + 280 + 35 = 2415$$

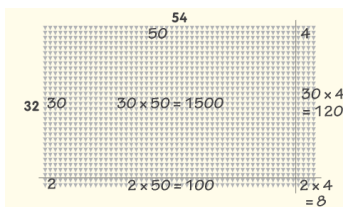
$$\begin{array}{r} 345 \\ \times 7 \\ \hline 2415 \\ 3 \quad 3 \end{array}$$

- Multiplying decimals using the short written method e.g. 22.6×4 .

$$\begin{array}{r} \times 20 \quad 2 \quad 0.6 \\ 4 \quad 80 \quad 8 \quad 2.4 \end{array} \quad 80 + 8 + 2.4 = 90.4$$

$$\begin{array}{r} 22.6 \\ \times 4 \\ \hline 90.4 \\ 1 \quad 2 \end{array}$$

- Multiplying 2-digit numbers (TO x TO) e.g. A farmer plants 32 rows of 54 carrot seeds. How many seeds altogether?



$$\begin{array}{r} \times 50 \quad 4 \\ 30 \quad 1500 \quad 120 \\ 2 \quad 100 \quad 8 \end{array} \quad 1500 + 120 + 100 + 8 = 1728$$

- Introducing long multiplication e.g. 35×24

$$\begin{array}{r} \times 30 \quad 5 \\ 20 \quad 600 \quad 100 \\ 4 \quad 120 \quad 20 \end{array} \quad 600 + 120 + 100 + 20 = 840$$

$$\begin{array}{r} 35 \\ \times 24 \\ \hline 140 \\ 700 \\ \hline 840 \end{array}$$

Can you..?

- Find the area of a field that measures 32m x 8m.
- Calculate 3.2×6 .
- Calculate the area of the field.

