

# Multiplying decimals by a 2-digit number using the grid method



- Multiply a decimal by a 2-digit number using the grid method
- Estimate and check the answer to a calculation

Challenge 1

1 For each machine, work out the output number for each input number.

- a** 6  
0.1  
0.07  
4  
0.9



- b** 0.04  
6  
0.8  
0.07  
0.9



- c** 9  
0.08  
0.07  
0.4  
0.02



- d** 8  
0.1  
0.6  
4.0  
0.09



- e** 0.06  
5  
0.08  
0.03  
0.01



- f** 0.9  
0.8  
0.07  
0.5  
0.06



- Find the total of the output numbers for each machine above.
- Place the machines in order, smallest output total to largest output total.
- Find the difference between the machine with the smallest and the machine with the largest total output.
- Each of the machines above has been given an additional multiplication function to complete. Multiply each output answer from the sets above by the number shown below to find the new answers.
  - Set **a** – multiply by 60
  - Set **b** – multiply by 10
  - Set **c** – multiply by 50
  - Set **d** – multiply by 40
  - Set **e** – multiply by 70
  - Set **f** – multiply by 20

Challenge 2

Estimate the answer to each calculation. Find the answer using the grid method. Then compare your answer with your estimate.

**Example**  
 $2.64 \times 38 \rightarrow 3 \times 40 = 120$

$\times$	2	0.6	0.04	
30	60	18	1.2	79.20
8	16	4.8	0.32	+ 21.12
				<u>100.32</u>

**a**  $3.46 \times 35$

**b**  $6.71 \times 93$

**c**  $5.45 \times 84$

**d**  $3.86 \times 45$

**e**  $8.26 \times 25$

**f**  $5.75 \times 43$

**g**  $8.65 \times 19$

**h**  $7.35 \times 18$

**i**  $3.28 \times 28$

**j**  $9.83 \times 47$

**k**  $2.67 \times 89$

**l**  $9.07 \times 34$

**m**  $4.89 \times 16$

**n**  $1.89 \times 57$

**o**  $6.47 \times 36$

**p**  $8.18 \times 81$

Challenge 3

Use each of the five digit cards once in each calculation in that box. Make a calculation that gives the answer shown.



**a**  $\square \cdot \square \times \square = 75.27$

**b**  $\square \cdot \square \times \square = 126.75$

**c**  $\square \cdot \square \times \square = 694.45$



**d**  $\square \cdot \square \times \square = 93.60$

**e**  $\square \cdot \square \times \square = 288.96$

**f**  $\square \cdot \square \times \square = 36.12$

