

## LO: To multiply decimals by an integer.

### Carefree Challenge

Choose the best method to solve these:

- a)  $65.2 \times 2 = 130.4$
- b)  $48.3 \times 3 = 144.9$
- c)  $52.4 \times 8 = 419.2$
- d)  $112.3 \times 4 = 449.2$
- e)  $74.6 \times 5 = 373$
- f)  $119.4 \times 3 = 358.2$
- g)  $234.8 \times 4 = 939.2$
- h)  $88.7 \times 0 = 0$

Solve the following calculations using a standard written method:

a) $25.4$	b) $19.3$	c) $21.5$	d) $34.2$
$\times \quad 4$	$\times \quad 3$	$\times \quad 8$	$\times \quad 5$
<hr/>	<hr/>	<hr/>	<hr/>
$101.6$	$57.9$	$172.0$	$171.0$
<hr/>	<hr/>	<hr/>	<hr/>
e) $48.3$	f) $124.5$	g) $217.6$	h) $205.2$
$\times \quad 4$	$\times \quad 6$	$\times \quad 4$	$\times \quad 3$
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$193.2$	$747.0$	$870.4$	$615.6$
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Now solve these word problems:

- a) It takes 16.4 metres to make a pair of curtains. How many metres of fabric is needed to make 8 pairs of curtains?  $131.2\text{m}$
- b) Same earns £12.60 for doing his Saturday morning paper round. How much does he earn after doing the paper round for 4 weeks?  $\text{£}50.40$
- c) A house is 25.5 metres wide. 6 terraced houses are built in a row. What is the total width of all 6 houses?  $153 \text{ metres}$

### Lovely Challenge

Choose the best method to solve these:

- a)  $423.4 \times 6 = 2540.4$
- b)  $362.5 \times 4 = 1450$  or  $1450.0$
- c)  $32.68 \times 5 = 163.4$
- d)  $63.05 \times 7 = 441.35$
- e)  $86.25 \times 6 = 517.5$
- f)  $75.65 \times 3 = 226.95$
- g)  $64.08 \times 4 = 256.32$
- h)  $95.42 \times 8 = 763.36$

Solve the following calculations using a standard written method:

a) $156.4$	b) $345.9$	c) $268.6$	d) $62.13$
$\begin{array}{r} \times \quad 6 \\ \hline 938.4 \end{array}$	$\begin{array}{r} \times \quad 4 \\ \hline 1383.6 \end{array}$	$\begin{array}{r} \times \quad 3 \\ \hline 805.8 \end{array}$	$\begin{array}{r} \times \quad 5 \\ \hline 310.65 \end{array}$
e) $34.65$	f) $29.13$	g) $42.15$	h) $89.95$
$\begin{array}{r} \times \quad 4 \\ \hline 138.6 \end{array}$	$\begin{array}{r} \times \quad 8 \\ \hline 233.04 \end{array}$	$\begin{array}{r} \times \quad 7 \\ \hline 295.05 \end{array}$	$\begin{array}{r} \times \quad 5 \\ \hline 449.75 \end{array}$

Now solve these word problems:

- a) It takes 16.24 metres to make a pair of curtains. How many metres of fabric is needed to make 8 pairs of curtains? **129.92 metres**
- b) Sam earns £25.65 working in the local newsagents each Saturday. How much does he earn after working for 5 weekends in a row? **£128.25**
- c) A house is 32.45 metres wide. 6 terraced houses are built in a row. What is the total width of all 6 houses? **194.7 metres**

### Tremendous Challenge

Solve these:

- a)  $87.34 \times 7 = 611.38$
- b)  $34.08 \times 34 = 1158.72$
- c)  $56.24 \times 23 = 1293.52$
- d)  $85.62 \times 42 = 3596.04$
- e)  $28.64 \times 44 = 1260.16$
- f)  $75.38 \times 26 = 1959.88$
- g)  $90.27 \times 62 = 5596.74$
- h)  $87.22 \times 74 = 6454.28$
- i)  $43.657 \times 21 = 916.797$
- j)  $76.159 \times 32 = 2437.088$

Now solve these word problems:

- a) It takes 26.45 metres of fabric to make a pair of curtains. How many metres of fabric is needed to make 8 pairs of curtains? **211.6 metres**
- b) The seamstress has 250 metres of fabric. How much will she have left over when she has made 7 pairs of curtains? **64.85 metres**
- c) Sam earns £32.68 working in the local newsagent each Saturday morning. How much does he earn after working for 12 weeks? **£392.16**
- d) Train tickets from London to Southampton cost £42.67 for adults and £28.75 for children. How much will it cost for a group of 21 adults and 14 children to travel to Southampton?  **$(£42.67 \times 21) + (£28.75 \times 14) = £1298.57$**