# ultiplication TO x TO using partitioning

Use partitioning to calculate TO × TO
Estimate and check the answer to a calculation

1 a $7 \times 3$
b $70 \times 3$
c $70 \times 30$

2 a $6 \times 8$
b $60 \times 8$
c $60 \times 80$

3 a $9 \times 4$
b $90 \times 4$
c $90 \times 40$

4 a $6 \times 6$
b $6 \times 60$
c $60 \times 60$

5 a $8 \times 7$
b $80 \times 7$
c $80 \times 70$

6 a $3 \times 8$
b $3 \times 80$
c $30 \times 80$

7 a $7 \times 5$
b $70 \times 5$
c $70 \times 50$

8 a $9 \times 8$
b $9 \times 80$
c $90 \times 80$

1 Estimate first then partition each of these calculations to work out the answer.

a $46 \times 42$
b $38 \times 33$
c $84 \times 56$
d $48 \times 65$
e $26 \times 39$
f $74 \times 58$
g $78 \times 46$
h $61 \times 78$
i $85 \times 92$
j $35 \times 24$
k $68 \times 37$
l $54 \times 26$
m $72 \times 38$
n $66 \times 66$
o $88 \times 88$

**Example**

$63 \times 38 \rightarrow 60 \times 40 = 2400$
$63 \times 38 = (63 \times 30) + (63 \times 8)$
$\qquad = 1890 + 504$
$\qquad = 2394$

2 Look carefully at the numbers in the calculations in Question 1. Find three calculations that could be worked out using a different strategy. Find the answer using your chosen strategy. Explain why you chose your method.

**Challenge 3**

1 Using each of the four number cards only once, make a TO × TO calculation that gives an answer as close as possible to the answer shown in the circle.
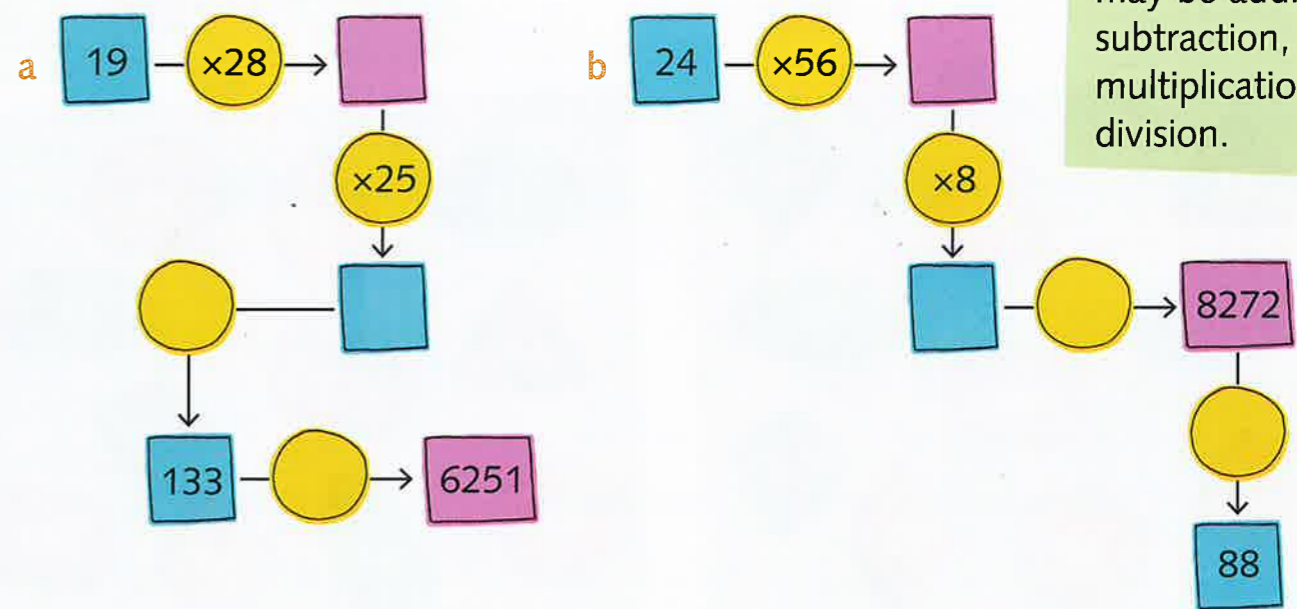
**Example**

$\boxed{4}\,\boxed{5}\,\boxed{3}\,\boxed{8}\;\bigcirc\!\!5000$

$84 \times 53 = (84 \times 50) + (84 \times 3)$
$\qquad = 4200 + 252$
$\qquad = 4452$

a $\boxed{2}\,\boxed{3}\,\boxed{5}\,\boxed{7}\;\bigcirc\!\!1000$

b $\boxed{2}\,\boxed{3}\,\boxed{7}\,\boxed{9}\;\bigcirc\!\!3000$

c $\boxed{1}\,\boxed{3}\,\boxed{5}\,\boxed{6}\;\bigcirc\!\!1000$

d $\boxed{3}\,\boxed{4}\,\boxed{5}\,\boxed{6}\;\bigcirc\!\!2000$

e $\boxed{2}\,\boxed{4}\,\boxed{7}\,\boxed{9}\;\bigcirc\!\!4000$

f $\boxed{1}\,\boxed{3}\,\boxed{6}\,\boxed{9}\;\bigcirc\!\!1000$

g $\boxed{4}\,\boxed{6}\,\boxed{7}\,\boxed{8}\;\bigcirc\!\!6000$

h $\boxed{7}\,\boxed{8}\,\boxed{9}\,\boxed{0}\;\bigcirc\!\!6000$

2 Copy these number machines. Write the missing numbers and decide which operations to use.

**Hint**

An operation may be addition, subtraction, multiplication or division.

a 

b