

Mathematics

# Multiplication and division

Mr Coward



# Try this

Fill in the blanks to complete the following calculations:

$$\text{(A)} \quad 5 \times 24 = 5 \times 20 + 5 \times \square = 100 + \square = \square$$

$$\text{(B)} \quad 9 \times 16 = 9 \times \square + 9 \times \square = 90 + \square = \square$$

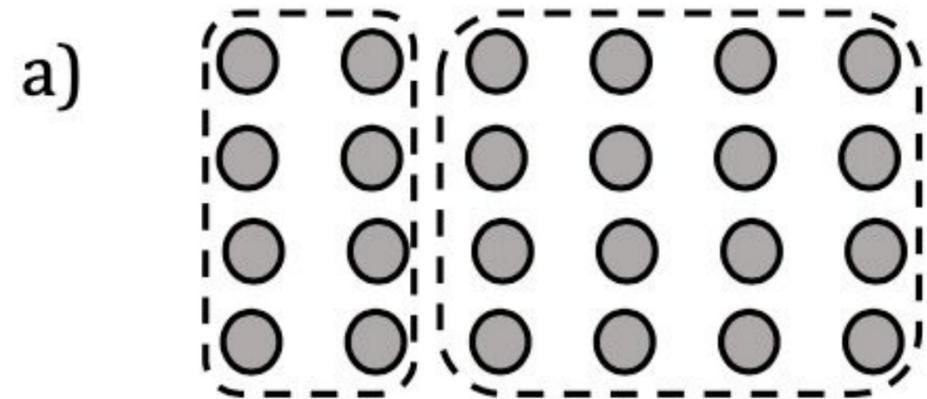
$$\text{(C)} \quad 15 \times 6 = 10 \times \square + 5 \times \square = 60 + \square = \square$$



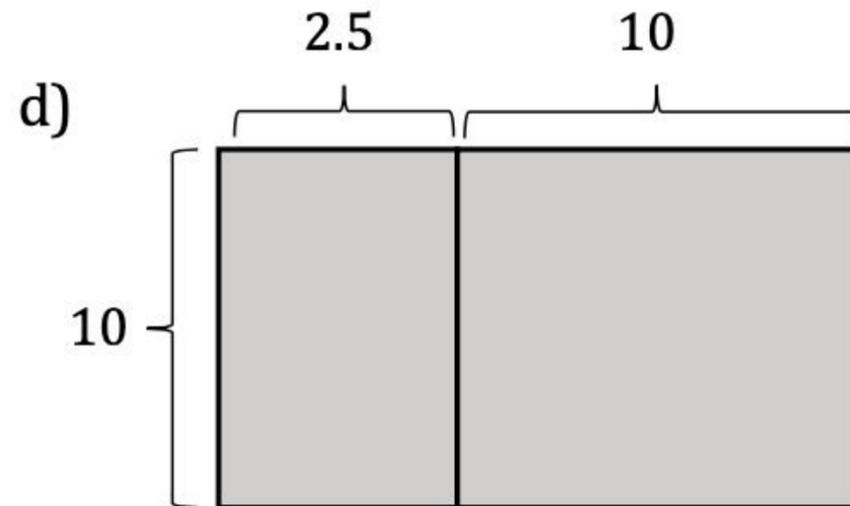
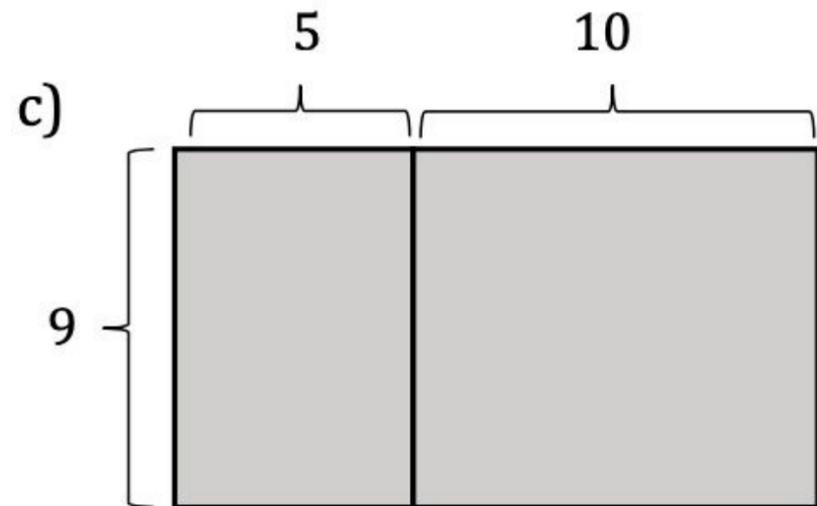
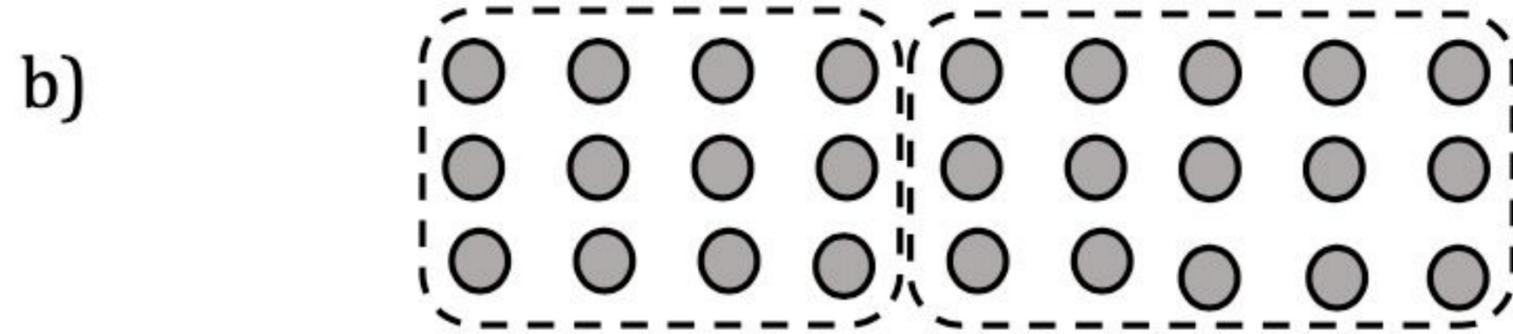
# Independent task

1) For each diagram write down the corresponding equation.

The first one has been done for you.



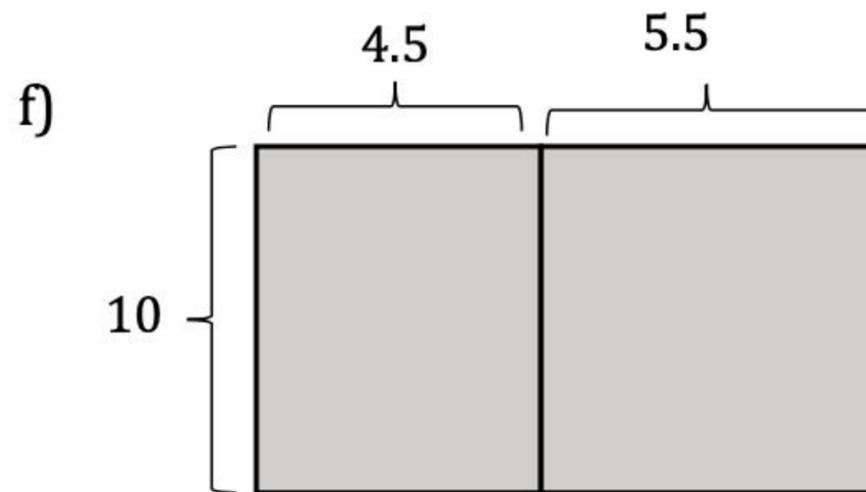
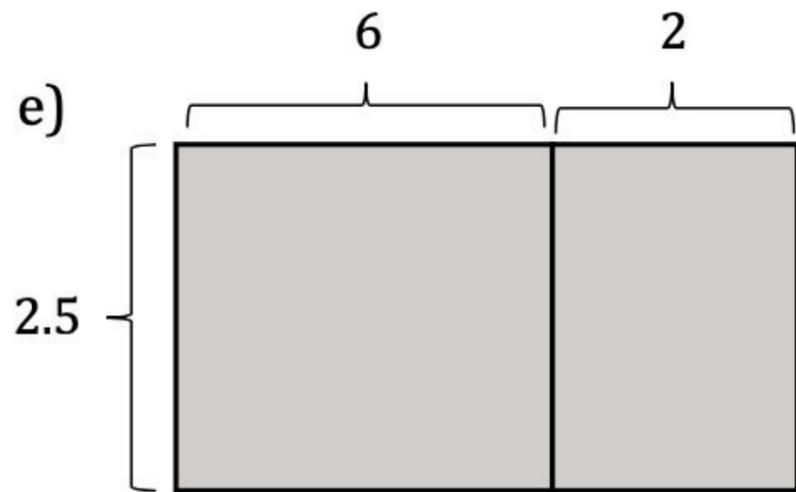
$$4 \times (2 + 4) = 4 \times 2 + 4 \times 4$$



# Independent task

1) For each diagram write down the corresponding equation.

The first one has been done for you.



2) Complete the different ways of using distributivity for calculating  $5 \times 17$ :

a)  $5 \times 17 = 5 \times (10 + \underline{\quad}) = 5 \times 10 + 5 \times \underline{\quad} = 50 + \underline{\quad} = \underline{\quad}$

b)  $5 \times 17 = 5 \times (8 + \underline{\quad}) = 5 \times 8 + 5 \times \underline{\quad} = 40 + \underline{\quad} = \underline{\quad}$

c)  $5 \times 17 = 5 \times (5 + \underline{\quad}) = 5 \times 5 + 5 \times \underline{\quad} = \underline{\quad} + \underline{\quad} = \underline{\quad}$

d)  $5 \times 17 = 5 \times (20 - \underline{\quad}) = 5 \times 20 - 5 \times \underline{\quad} = \underline{\quad} - \underline{\quad} = \underline{\quad}$

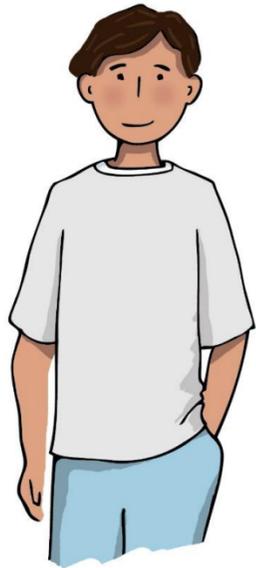
Which way is your preferred method?

Why?



# Explore

$$36 \times 8 + 64 \times 8$$



I would work out each product first ...

Firstly I would re-write it as  $(36 + 64) \times 8$  ...



What might their next steps be?

Complete the calculation using each strategy.

Would you do it in a different way?

