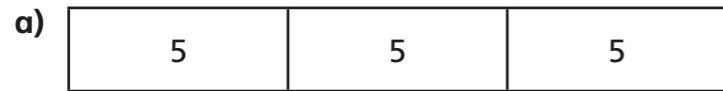


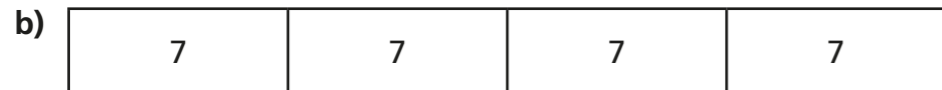
Use letters to generalise number



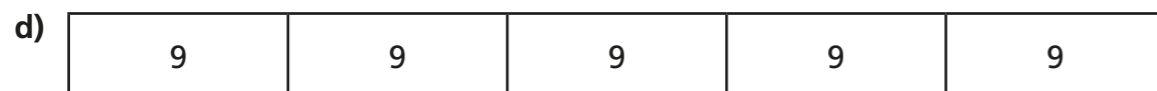
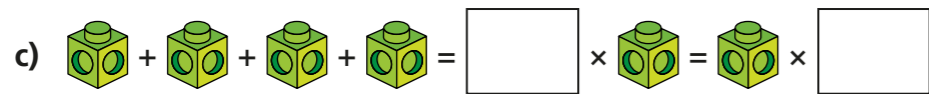
1 Complete the calculations.



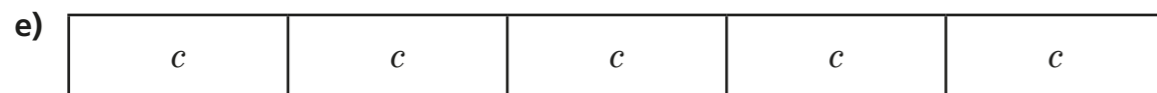
$$5 + 5 + 5 = \square \times 5 = 5 \times \square$$



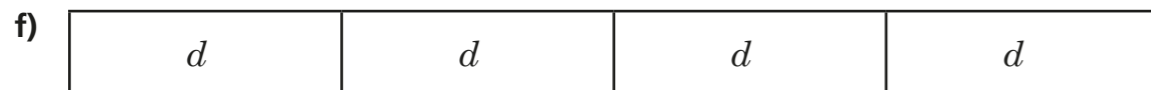
$$7 + 7 + 7 + 7 = \square \times 7 = \square \times \square$$



$$9 + 9 + 9 + 9 + 9 = \square \times \square = \square \times \square$$

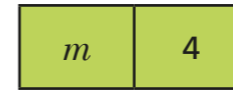


$$c + c + c + c + c = \square \times c = \square \times \square$$

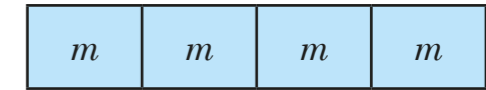


$$d + d + d + d = \square \times \square = \square \times \square$$

2 Which one of these bar models represents $4m$? Tick your answer.







What do the other bar models represent? Explain your answer.

3 Circle the calculations that are correct.

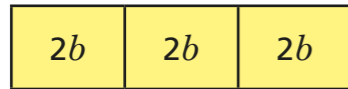
$$a + a = a^2 \quad a + a = 2a \quad a + a = a2$$

Draw diagrams to support your answer.





4 a) Explain why this bar model shows $2b \times 3$



b) Use the bar model to complete the calculation.

$$2b \times 3 = \square + \square + \square = \square$$

5 Complete these expressions without using an operation.

a) $3 \times g = \square g$

g) $k \times k = \square$

b) $g + g + g = \square g$

h) $5d \times 2 = \square d$

c) $h \div 3 = \square$

i) $7 \times 3a = \square$

d) $3 \div h = \square$

j) $4c \times 5 = \square$

e) $y \times 7 = \square$

k) $5 \times a \times a = \square$

f) $j \times k = \square$

l) $4 \times 3 \times r = \square$

6 Explain what these expressions mean.

a) $2m$ _____

b) $\frac{m}{2}$ _____

c) m^2 _____

d) $\frac{2}{m}$ _____

e) gh _____

f) $\frac{h}{g}$ _____

7 Write expressions for these statements.

a) m divided by 7 \square

d) t squared \square

b) 3 multiplied by r \square

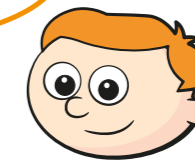
e) k divided by n \square

c) p multiplied by 11 \square

f) p multiplied by 3 multiplied by y \square

8

xy is equivalent to yx .



Ron is correct. Explain why.

$\frac{x}{y}$ is equivalent to $\frac{y}{x}$.



Do you agree? _____

Explain your reasoning.
