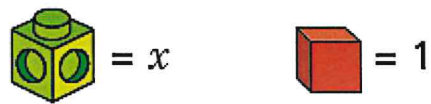


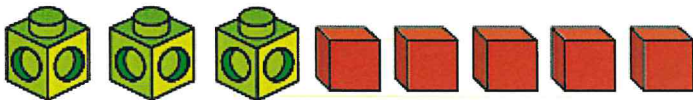
Tommy uses multilink cubes to represent an unknown number and base ten ones to represent 1




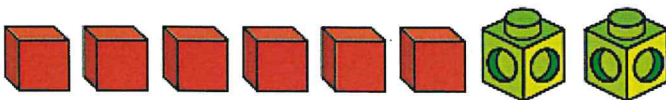
Write algebraic expressions to describe the sets of cubes.

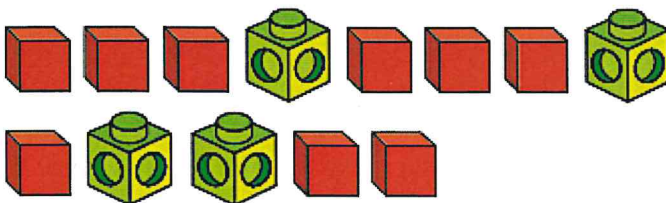
The first one has been done for you.

a)   $2x + 3$

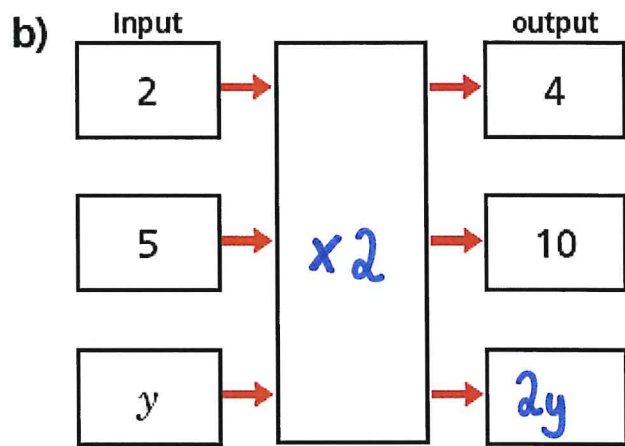
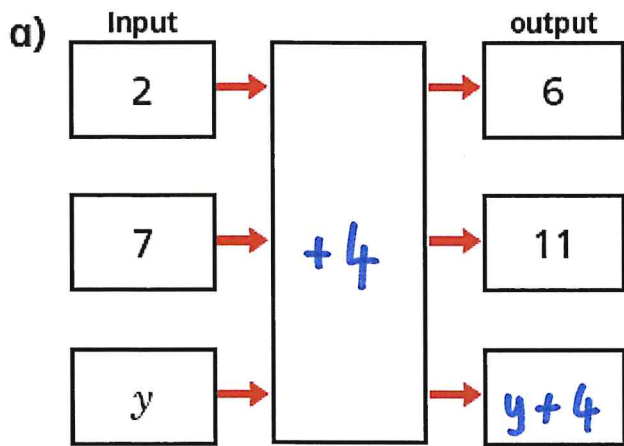
b)   $3x + 5$

f)   $5x + 2$

g)   $2x + 6$

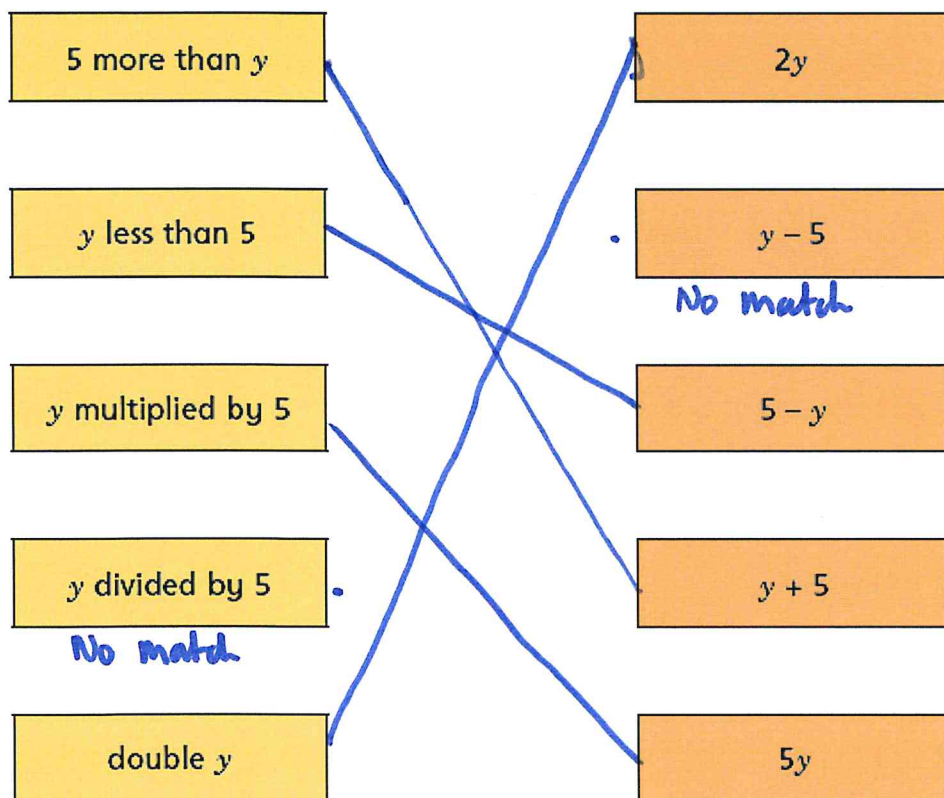
h)   $4x + 9$

Complete the function machines.

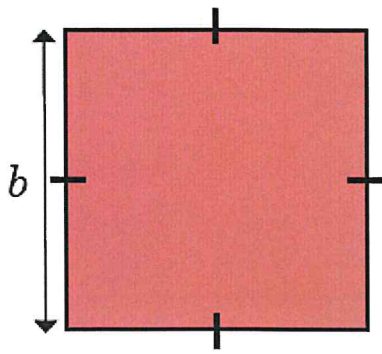


Match each statement to the equivalent algebraic expression.

Write the missing statements.

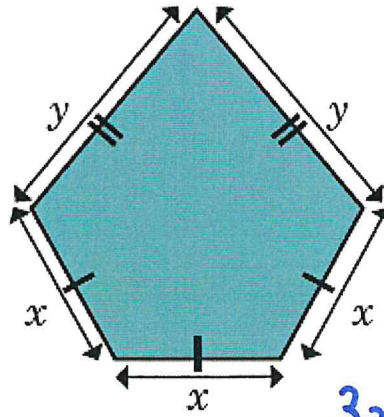


Write an algebraic expression to represent the perimeter of each shape.



$$4b$$

e)

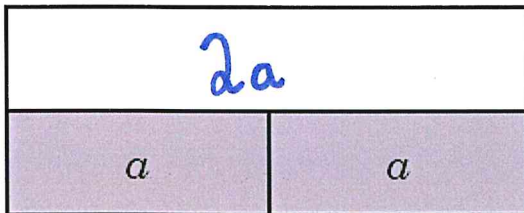


$$3x + 2y$$

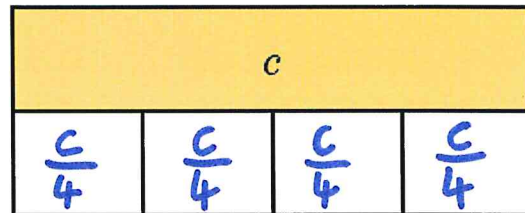
### Working Deeper

Complete the bar models.

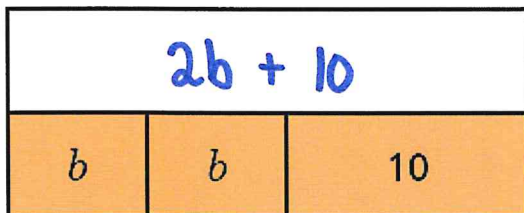
a)



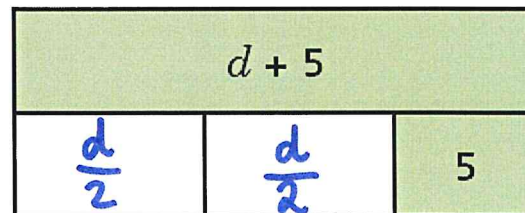
c)



b)



d)



Tommy uses multilink cubes to represent an unknown number and base ten ones to represent 1

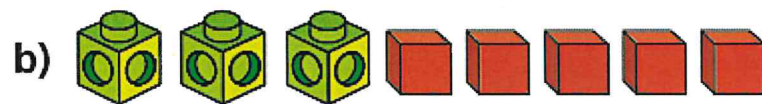
$$\text{Green cube} = x \quad \text{Red cube} = 1$$

Write algebraic expressions to describe the sets of cubes.

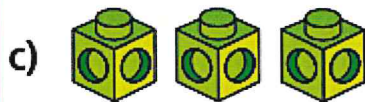
The first one has been done for you.



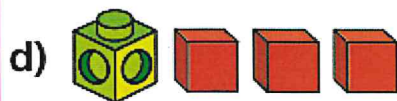
$$2x + 3$$



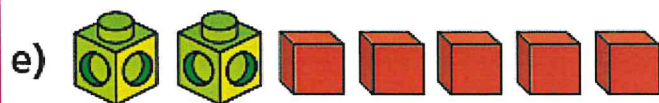
$$3x + 5$$



$$3x$$



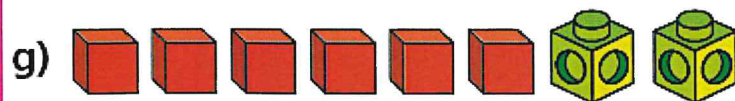
$$x + 3$$



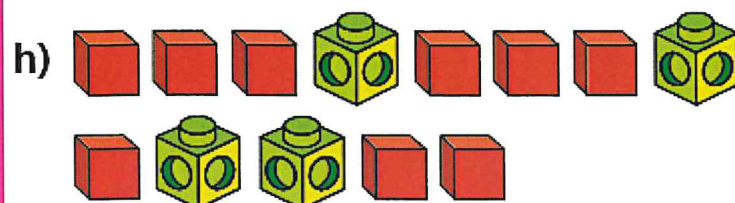
$$2x + 5$$



$$5x + 2$$

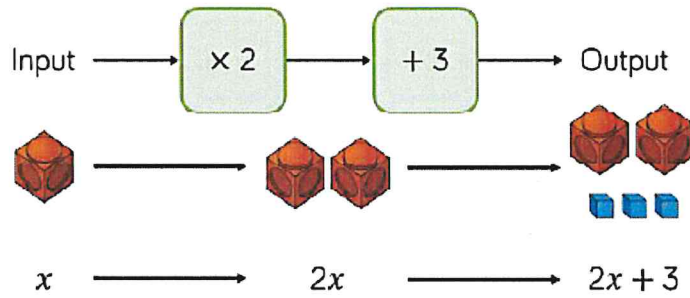


$$2x + 6$$

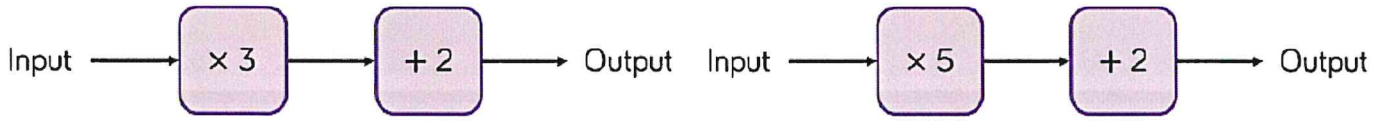


$$4x + 9$$

Eva is writing expressions for two-step function machines.



Use Eva's method to write expressions for the function machines.

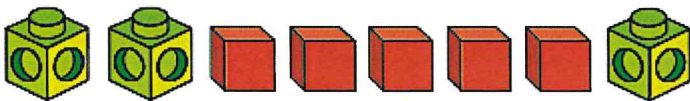


$$x \rightarrow 3x \rightarrow + 2 \rightarrow 3x + 2$$

Use cubes to help you simplify the following expressions.

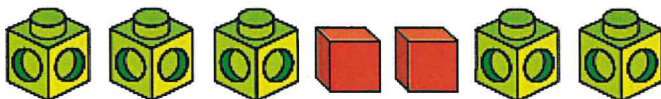
The first one has been done for you.

a)  $2y + 5 + y$



$$\underline{3y + 5}$$

b)  $3a + 2 + a + a$



$$\underline{5a + 2}$$

c)  $6p + 2 - 2p$



$$\underline{4p + 2}$$