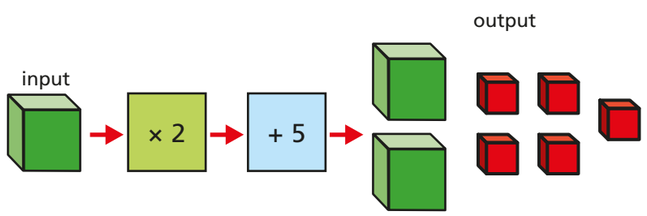
2-step function machines (algebra)

1 **a)** Which function machine shows the correct output? Tick your answer.



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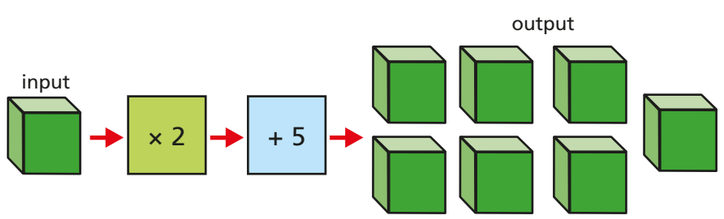

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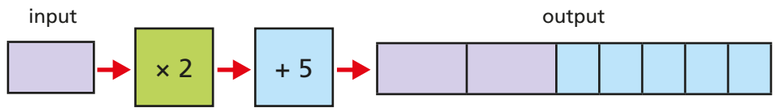
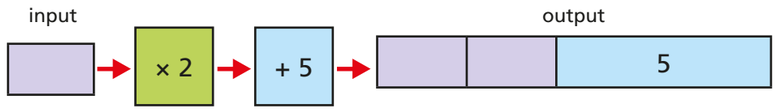
Why is the other function machine incorrect?

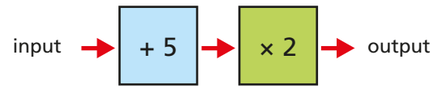
Talk about it with a partner.

b) Explain why both function machines are correct.





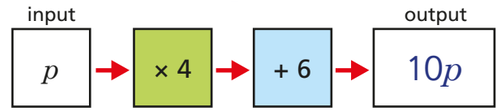
c)



Draw a bar model to represent the function machine.

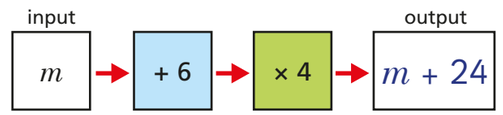
2 Explain the mistakes that have been made in the function machines.

a) $4p$



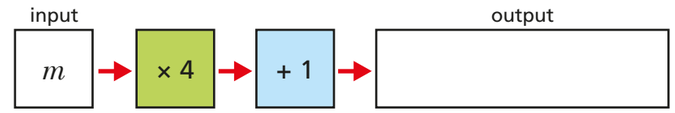
b) $g + 6$

c) $m + 6$

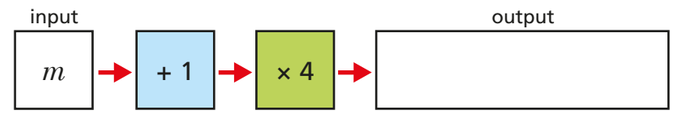


3 Complete these 2-step function machines.

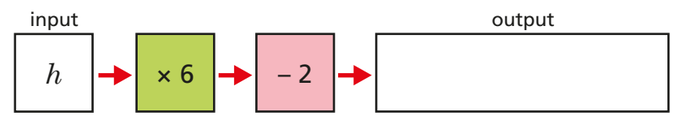
a)



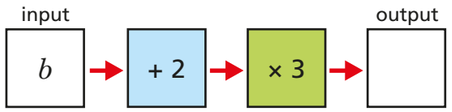
b)

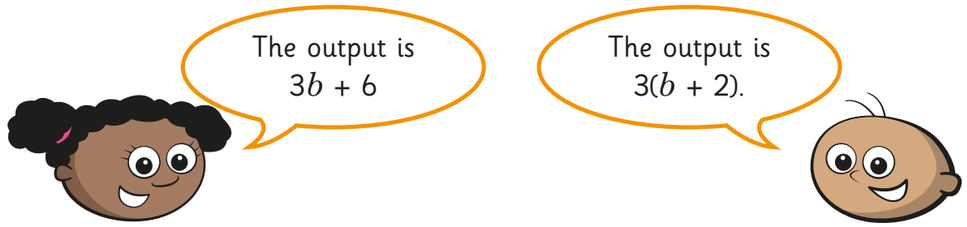


c)



4 Whitney and Tommy are finding the output for this 2-step function machine.

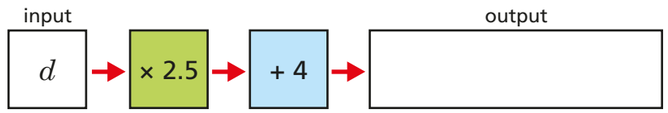




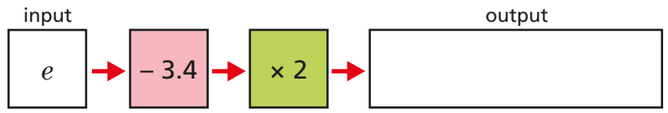
Show how both of these outputs are correct.

5 Complete these 2-step function machines.

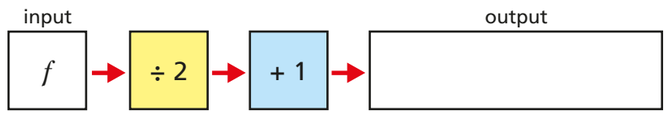
a)



b)

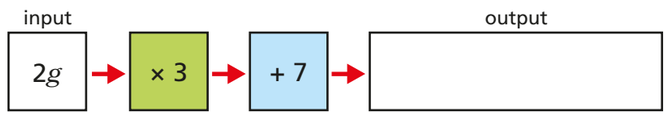


c)

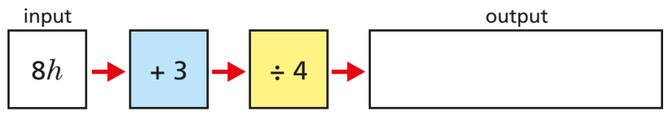


6 Complete these 2-step function machines.

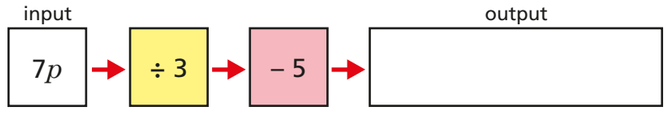
a)



b)

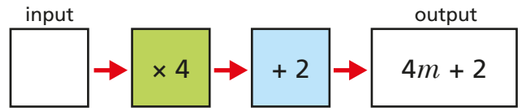


c)

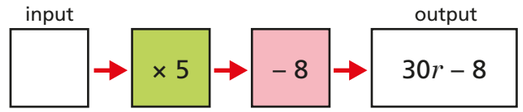


7 Complete these 2-step function machines.

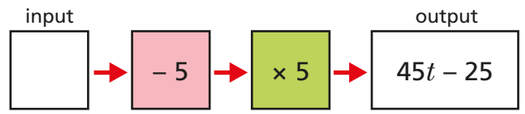
a)



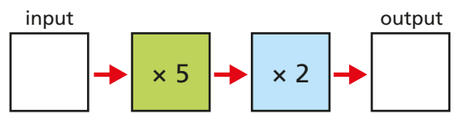
b)

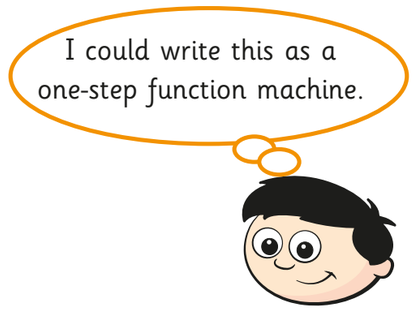


c)



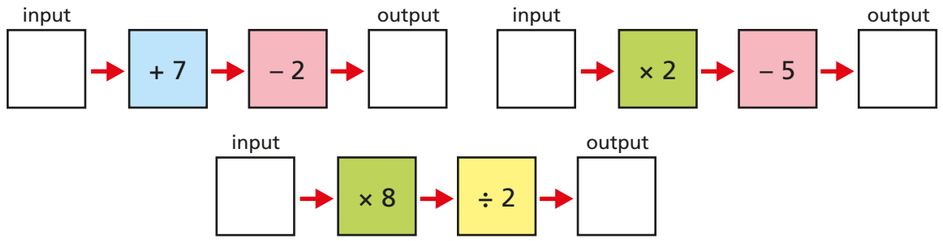
8 **a)** Here is a 2-step function machine.





Show that Dexter is correct.

b) Which of these can be written as a one-step function machine?
Tick your answer.



c) What other function machines can you write as a single step?
What patterns do you notice?