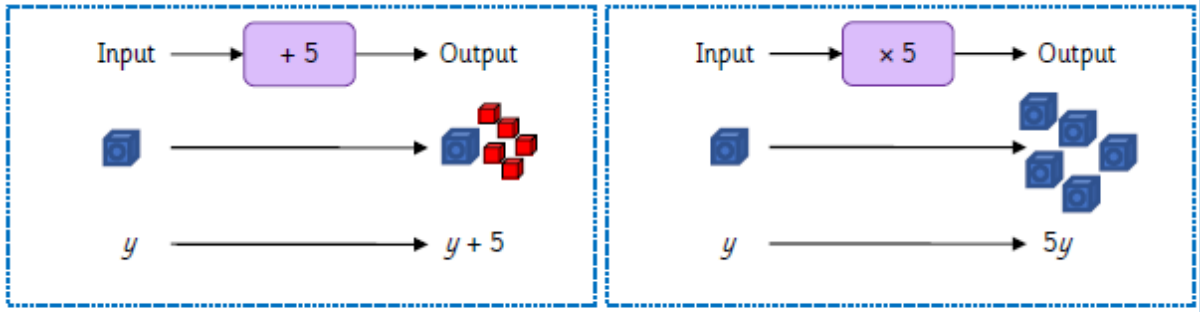
3/2/21

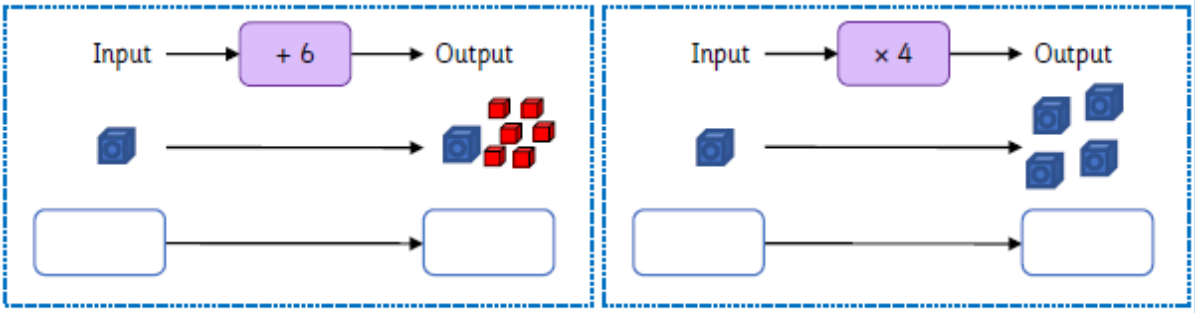
LO: to form algebraic expressions (easy).

Varied Fluency

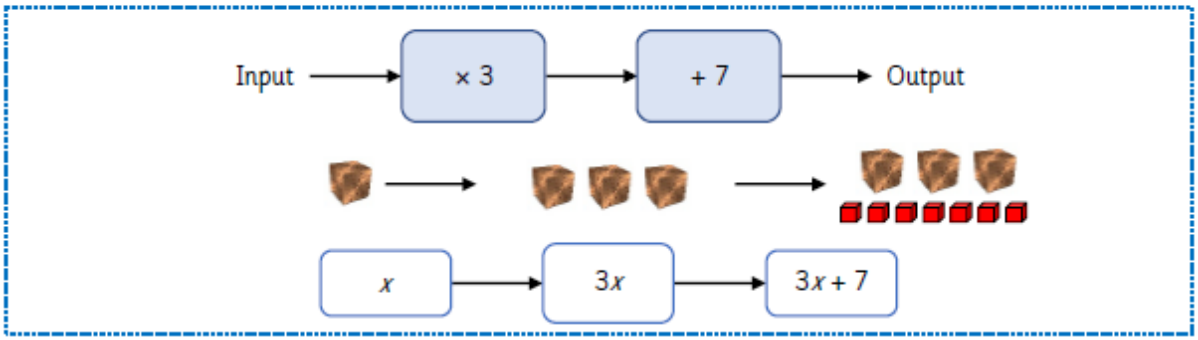
Malachi uses cubes to write expressions for function machines.



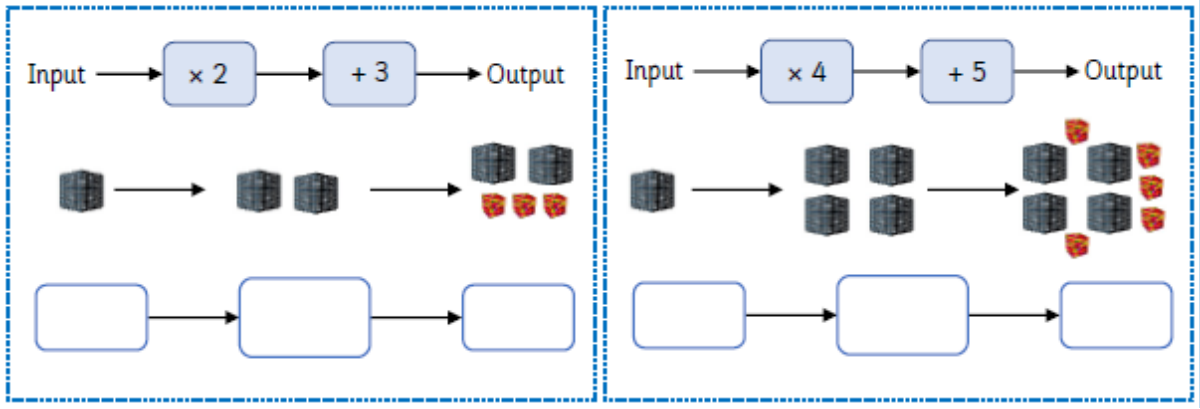
Use Malachi's method to represent the function machines.
What is the output for each machine when the input is a?



Tia is writing expressions for two-step function machines.

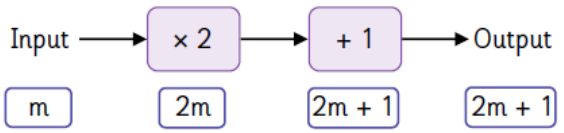


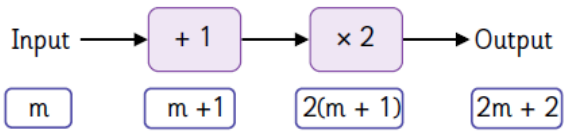
Use Tia's method to write expressions for the function machine.



Reasoning and Problem Solving

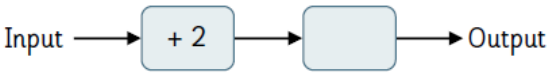
Zach inputs m into these function machines.





He says the outputs of the machines will be the same.
Do you agree? Explain your answer.

This function machine gives the same output for every input.
For example if the input is 5 then the output is 5 and so on.



What is the missing part of the function?

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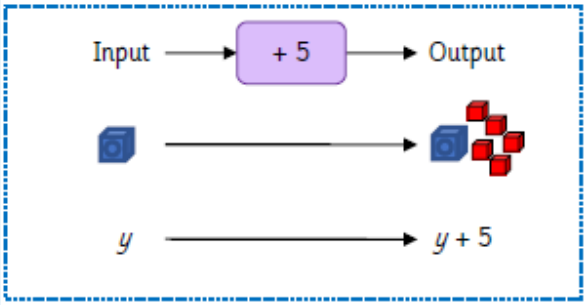
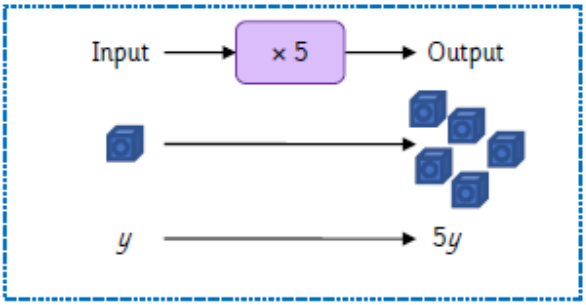
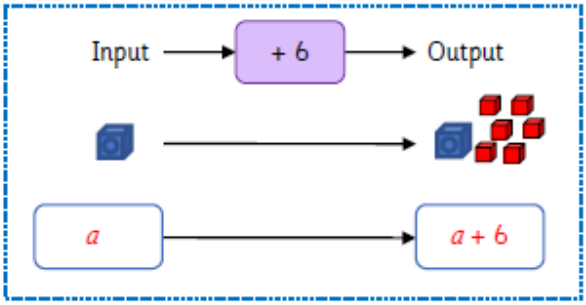
Answers on next page

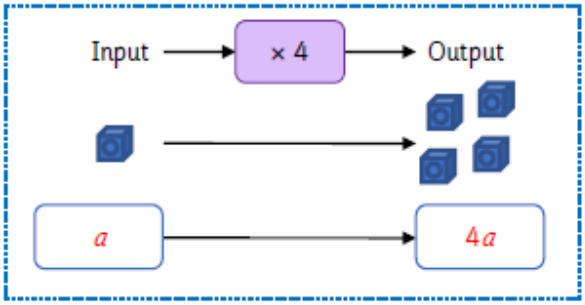
Malachi uses cubes to write expressions for function machines.



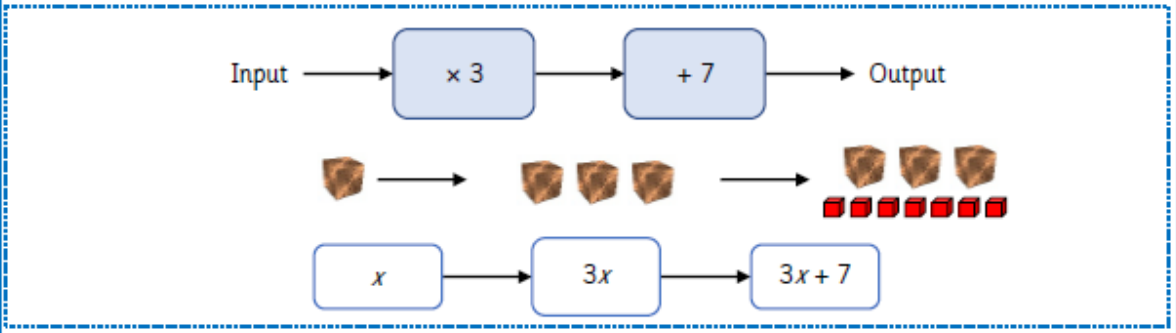


Use Malachi's method to represent the function machines.
What is the output for each machine when the input is a?

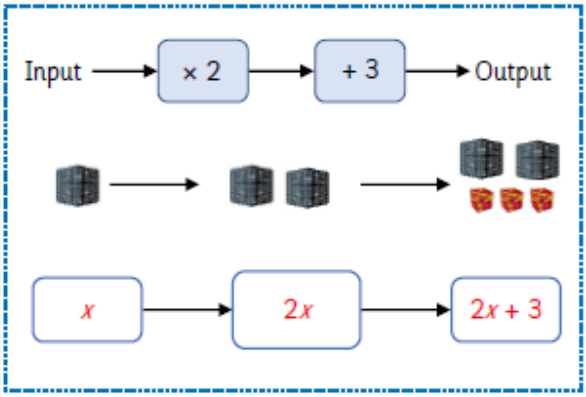


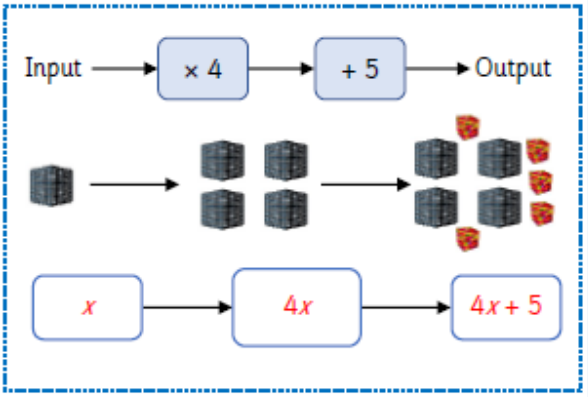


Tia is writing expressions for two-step function machines.



Use Tia's method to write expressions for the function machine.





Zach inputs m into these function machines.

Input		× 2		+ 1		Output
m		2m		2m + 1		2m + 1

Input		+ 1		× 2		Output
m		m + 1		2(m + 1)		2m + 2

He says the outputs of the machines will be the same.

Do you agree? Explain your answer.

No, because 2m + 1 isn't the same as 2m + 2:

2m + 1

Input 

× 2 

+ 1 

2m + 2

Input 

+ 1

× 2 

Children may use examples with numbers to show.

This function machine gives the same output for every input.

For example if the input is 5 then the output is 5 and so on.

Input		+ 2		– 2		Output

What is the missing part of the function?