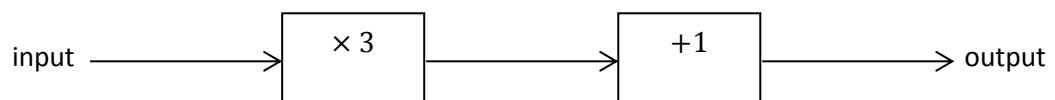


### Sequences Starters and Function Machines

- 1) The first three terms in a sequence are given by  $a \ b \ c \dots$   
The rule to get from one term to the next is to double and then add 1
  - a) Write  $b$  in terms of  $a$
  - b) Write  $c$  in terms of  $a$ , simplifying your answer
  
- 2) The first three terms in a sequence are given by  $a \ b \ c \dots$   
The rule to get from one term to the next is to subtract 4 and then multiply by 3
  - a) Write  $b$  in terms of  $a$
  - b) Write  $c$  in terms of  $a$ , simplifying your answer
  
- 3) A function machine is given below



- a) What is the output when the input is 4?
- b) For what value is the input equal to the output?
- c) For what input is the output double the input?