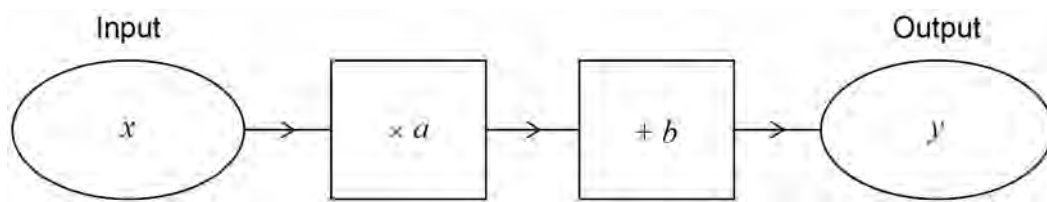


1 (a) Here is a number machine.



Show that when the input increases by 2 the output increases by $2a$.

[2 marks]

$$ax + b = y$$

when input = $x+2$,

$$a(x+2) + b = y$$

$$ax + \textcircled{2a} + b = y \quad \textcircled{2}$$