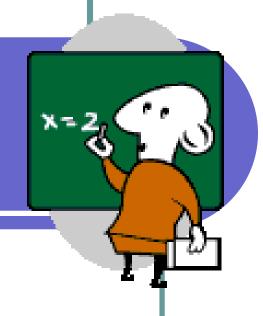
Algebra 1

Input and Output

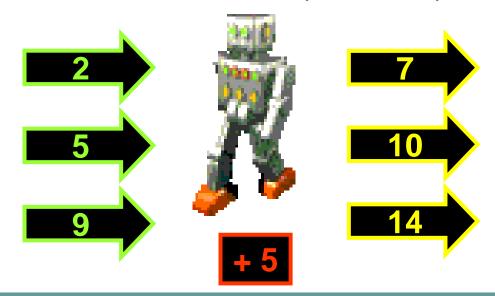


Single machines





Imagine that we have a robot to help us make patterns.

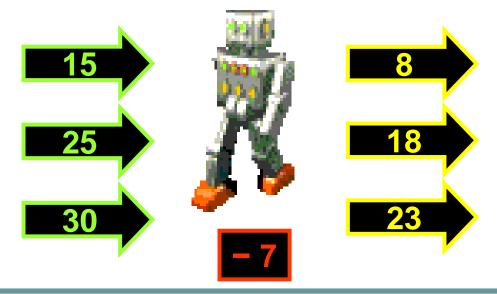


Single machines





Imagine that we have a robot to help us make patterns

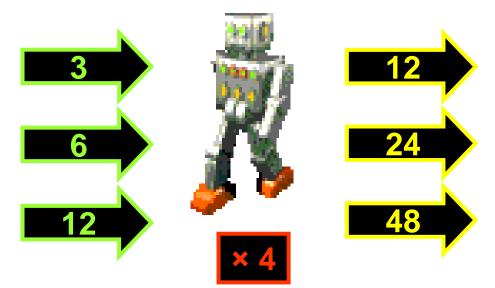


Single Machines





Imagine that we have a robot to help us make patterns

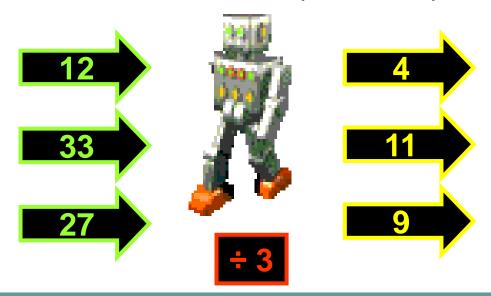


Single machines





Imagine that we have a robot to help us make patterns

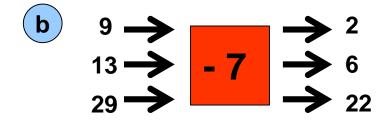


Exercises 1

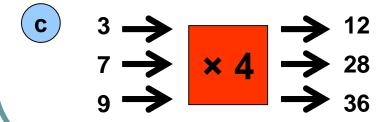


- Here are single number machines
- What is the output since we know the input?

$$\begin{array}{cccc}
\mathbf{d} & 11 & \longrightarrow & 77 \\
9 & \longrightarrow & \mathbf{7} & \longrightarrow & 63 \\
7 & \longrightarrow & 49
\end{array}$$



$$\begin{array}{cccc}
& 12 \longrightarrow & 2 \\
& 36 \longrightarrow & 6 \\
& 66 \longrightarrow & 11
\end{array}$$



$$\begin{array}{cccc}
 & 18 & \longrightarrow & 2 \\
 & 54 & \longrightarrow & 9 \\
 & & 81 & \longrightarrow & 9
\end{array}$$

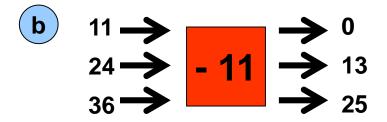
Exercises 2



- Here are single number machines.
- What is the output since we know the input?

a	1 ->		
	3 →	+ 9	→ 12
	$_{5}$		→ 14

$$\begin{array}{cccc}
\mathbf{d} & 6 & \longrightarrow & 54 \\
4 & \longrightarrow & \mathbf{x} & \mathbf{9} & \longrightarrow & 36 \\
9 & \longrightarrow & 81
\end{array}$$



$$\begin{array}{cccc}
 & 21 & \longrightarrow & 3 \\
 & 49 & \longrightarrow & 7 \\
 & 63 & \longrightarrow & 9
\end{array}$$

