

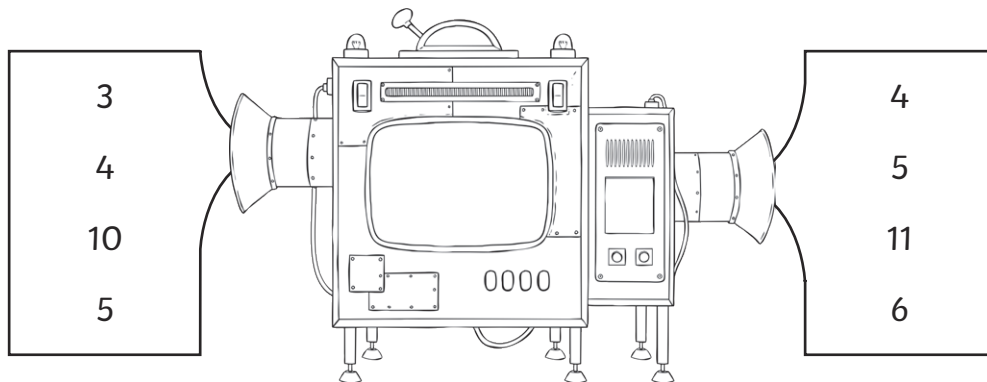
Level 3 Algebra: What's the Rule?



This worksheet uses rules to help you work out what the input or output number should be. Use each rule to change the number on one side of the machine to the number on the other side.

For example:

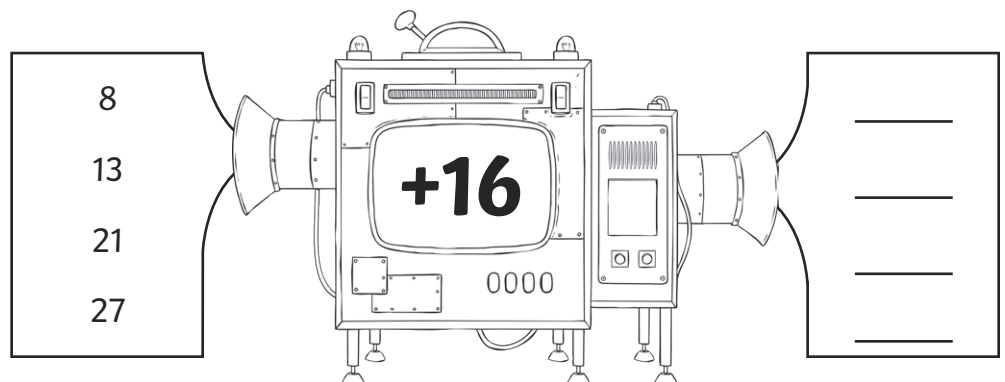
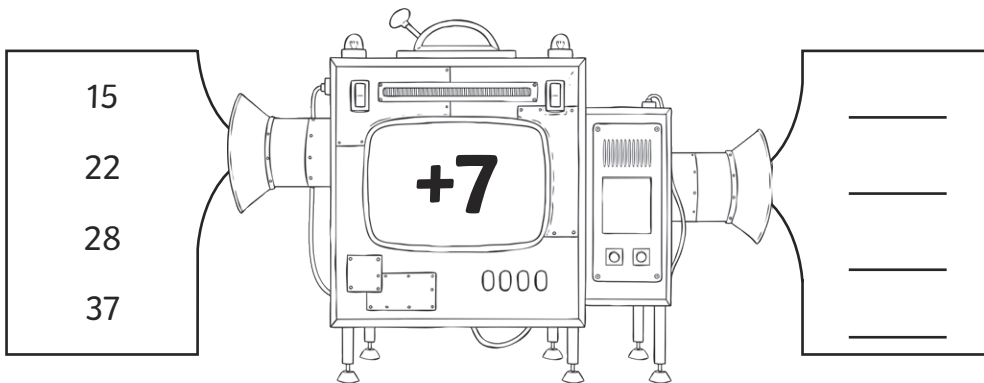
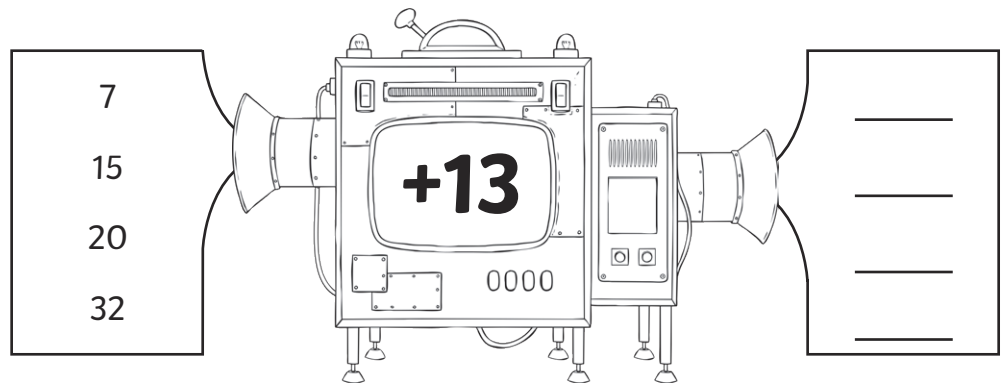
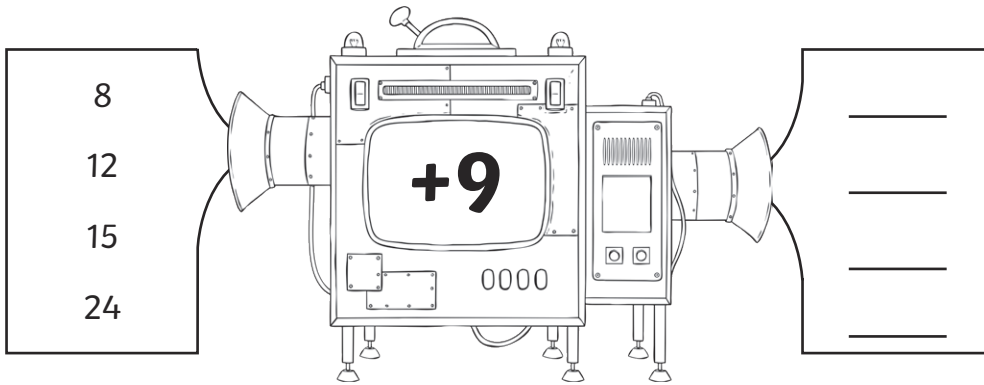
What is the rule to change these numbers?



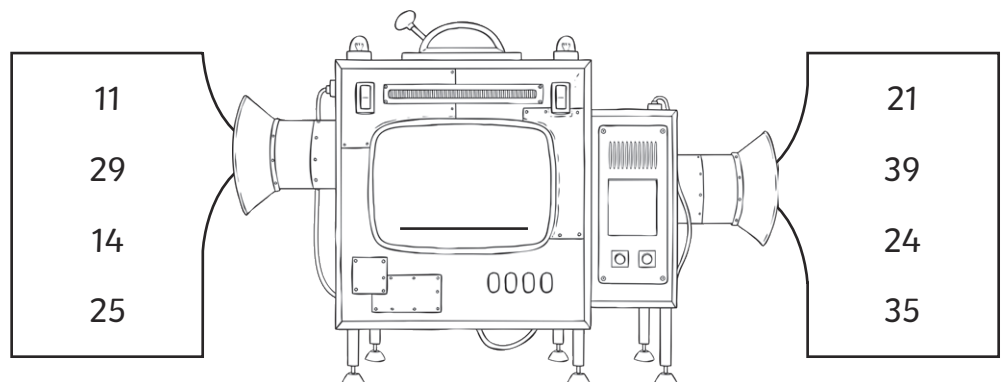
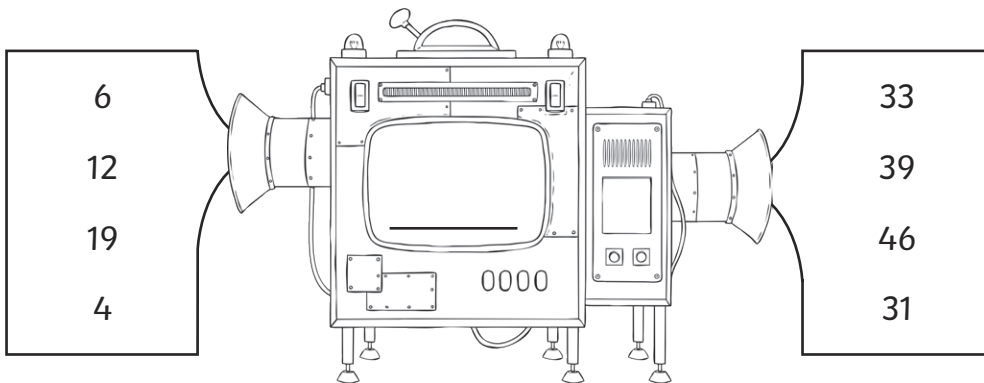
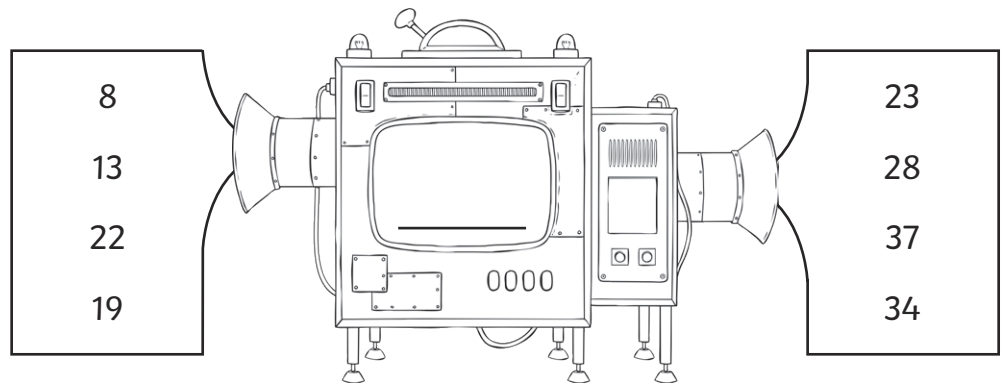
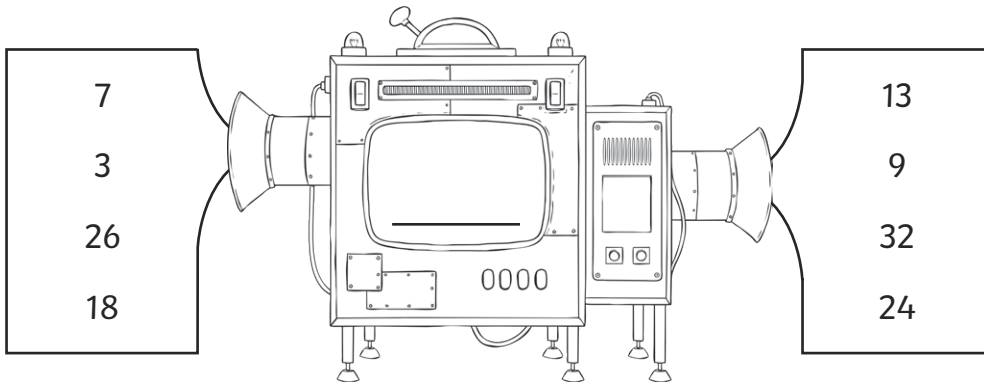
Rule = +1

Section 1

Addition rules: Complete the missing output numbers, on the right side of the machine, by applying the rule in the middle of the machine.

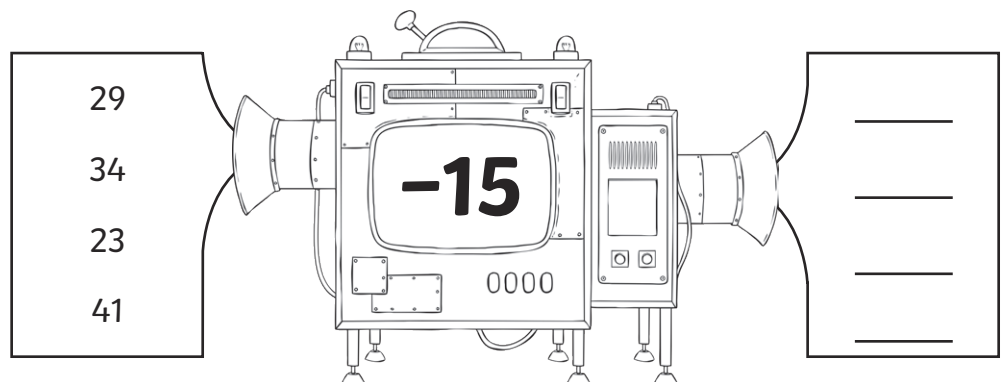
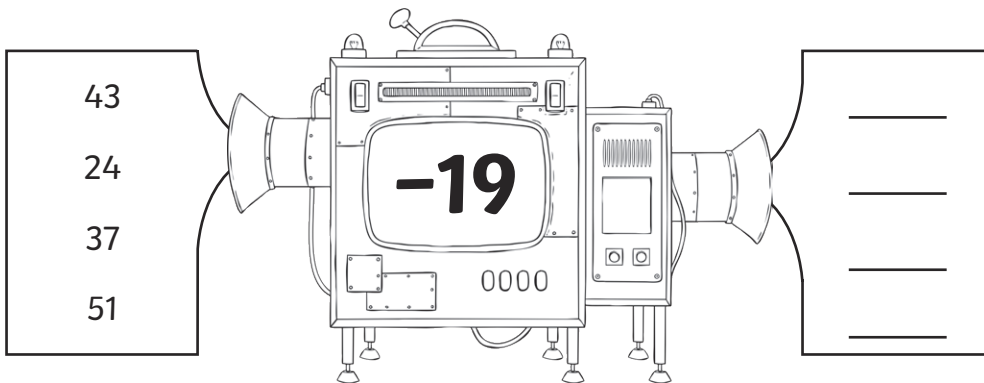
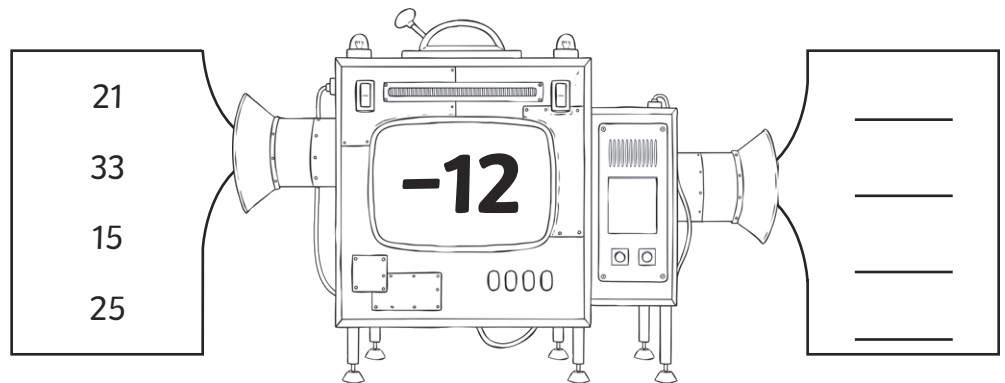
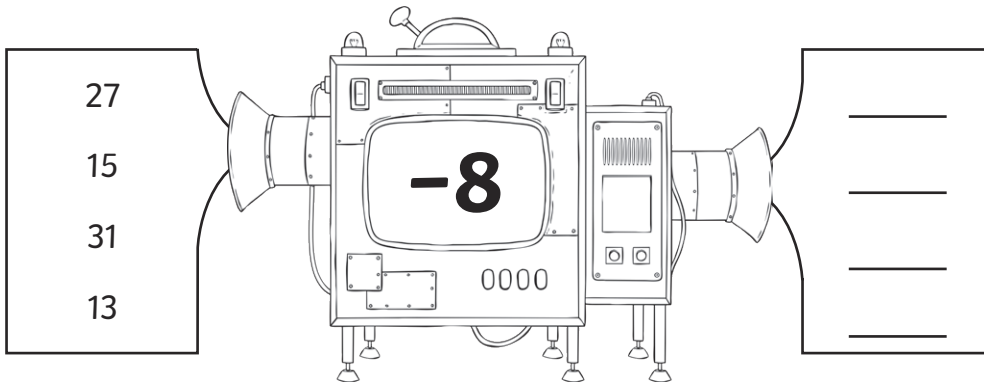


Use the input and output numbers to work out the rule.

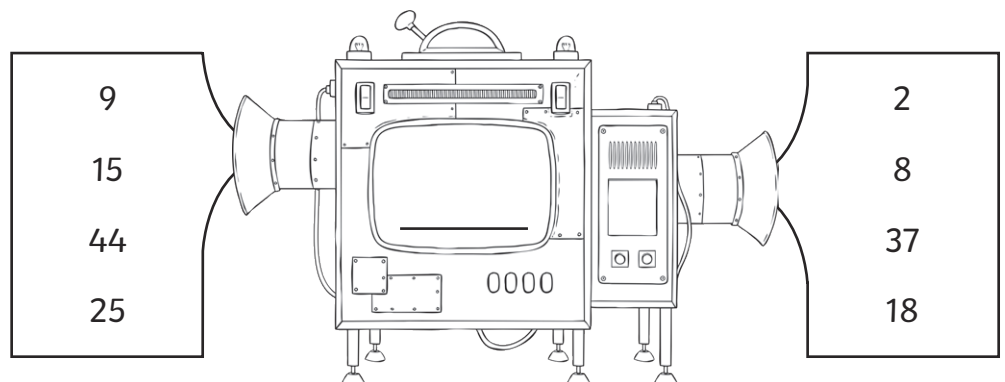
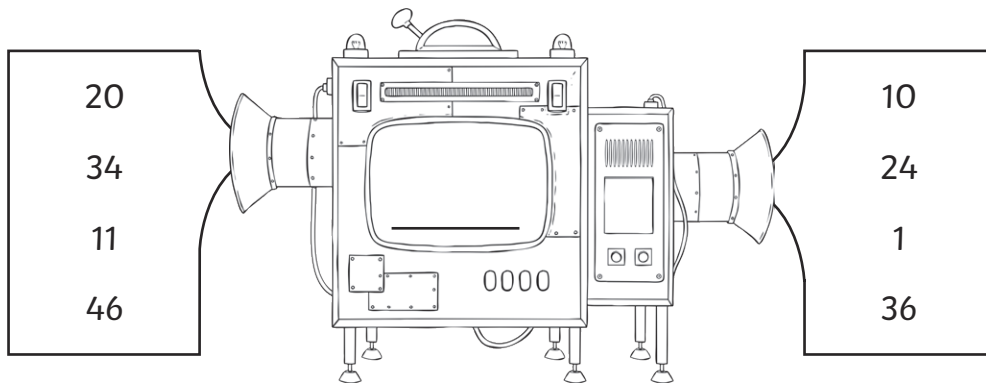
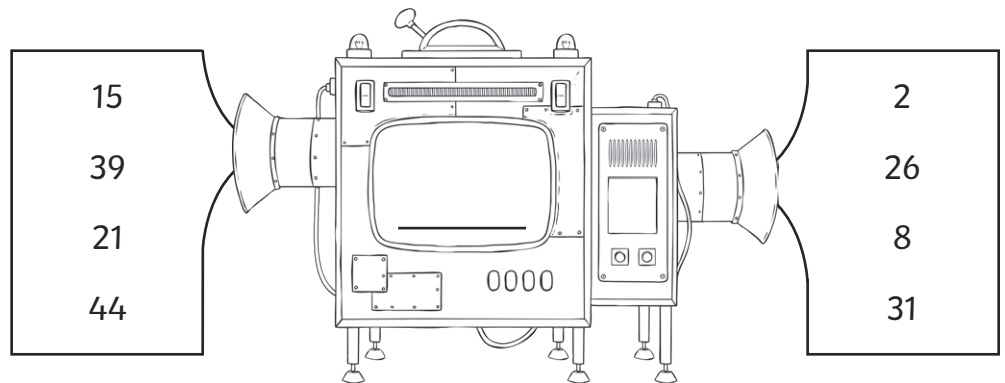
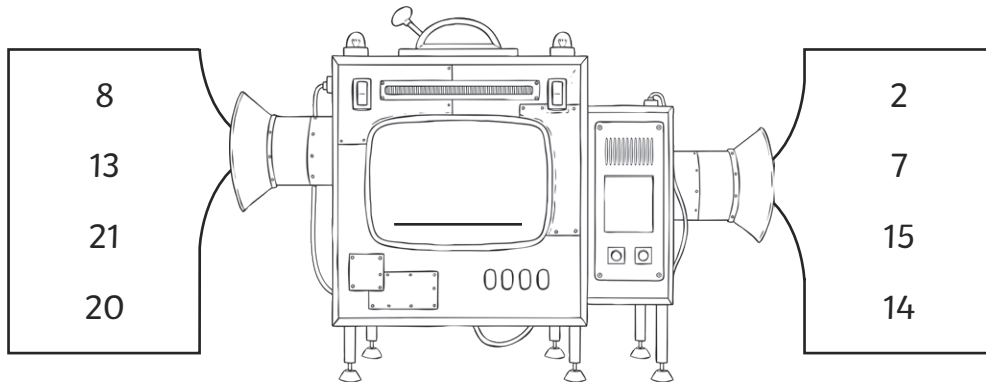


Section 2

Subtraction rules: Complete the missing output numbers, on the right side of the machine, by applying the rule in the middle of the machine.

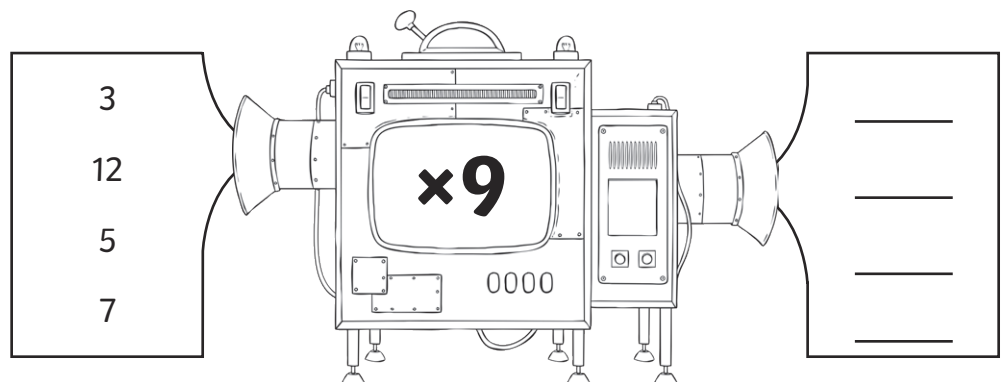
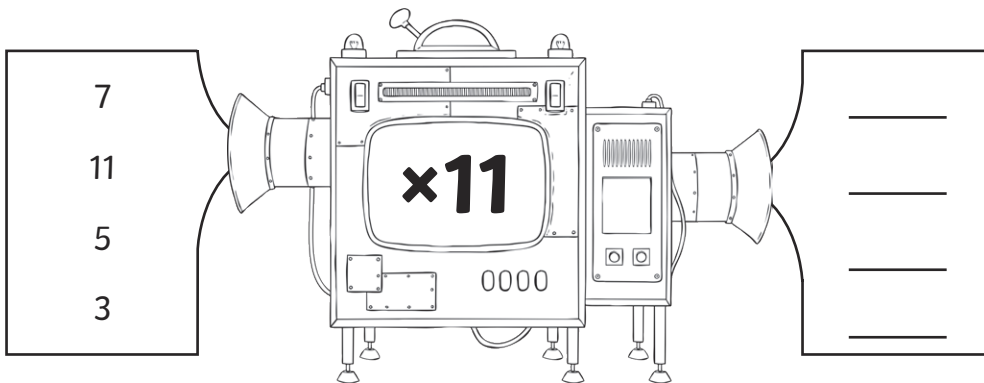
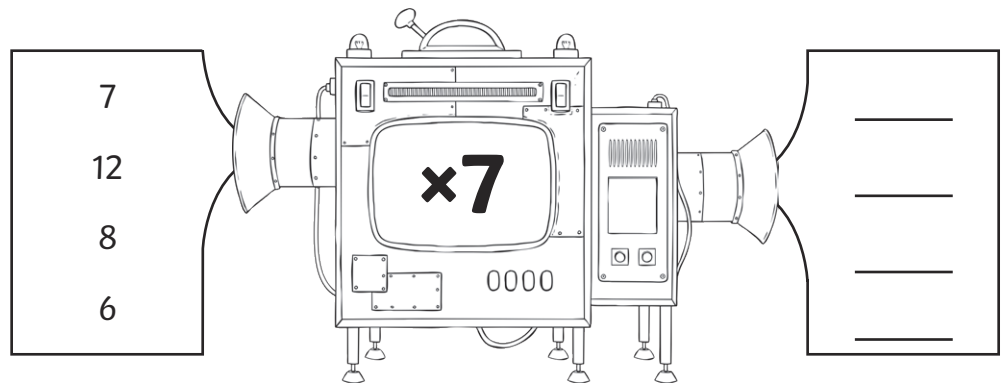
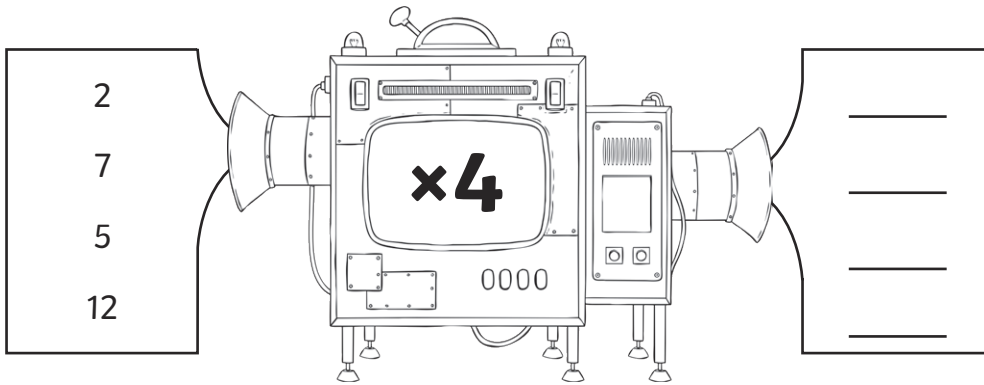


Use the input and output numbers to work out the rule.

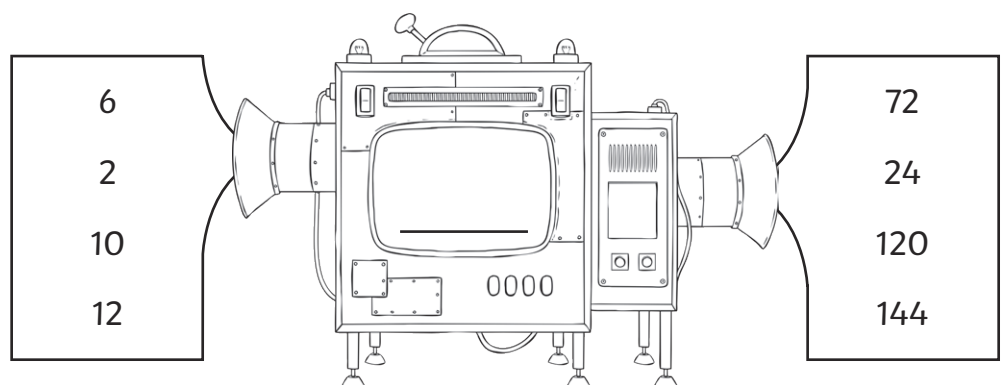
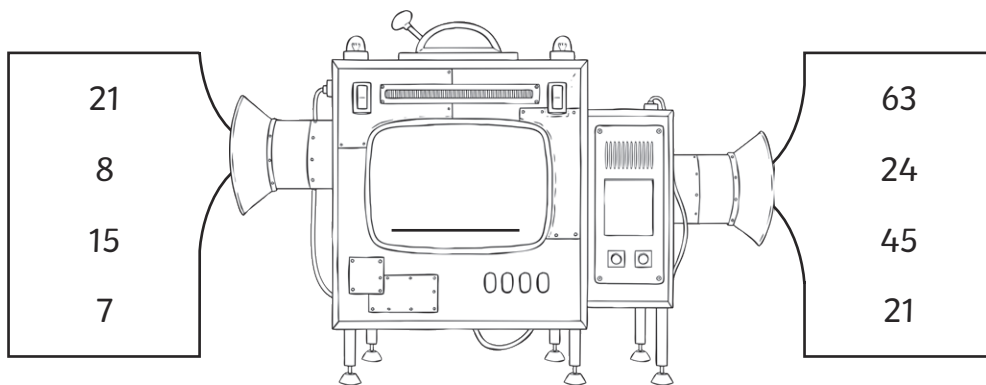
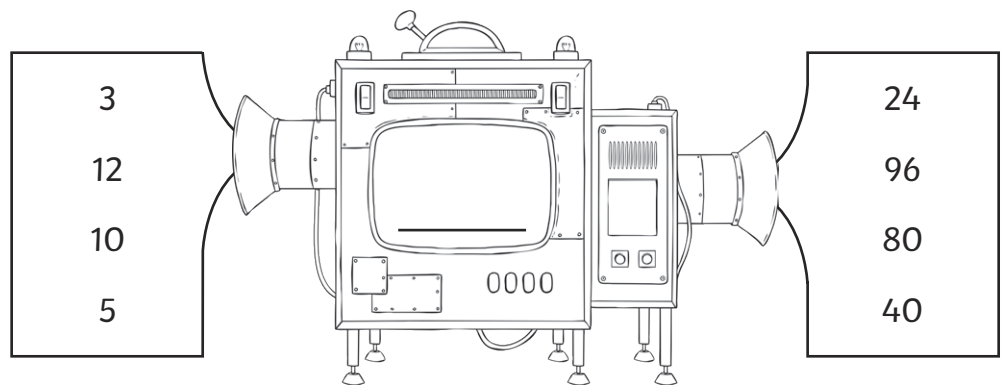
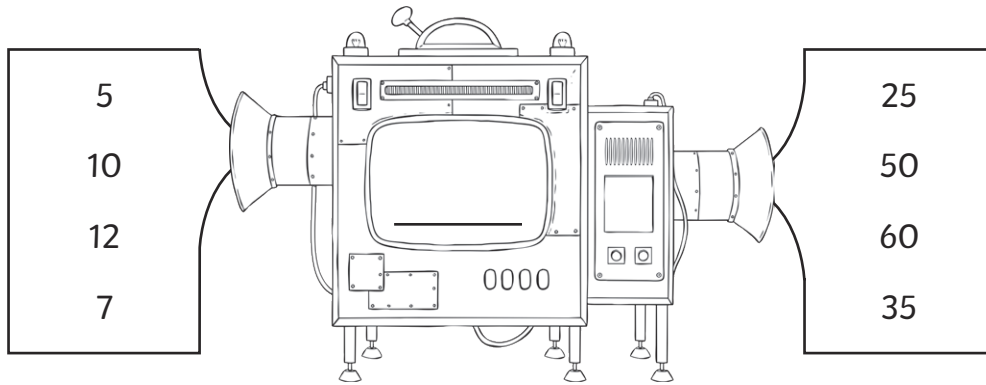


Section 3

Multiplication rules: Complete the missing output numbers, on the right side of the machine, by applying the rule in the middle of the machine.

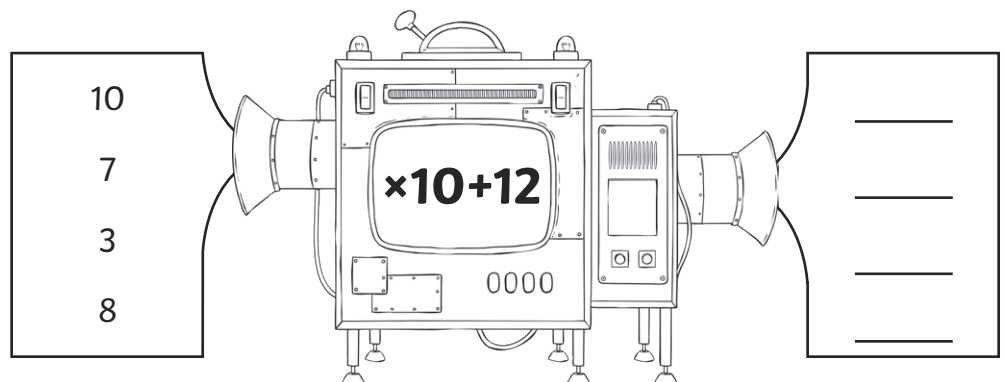
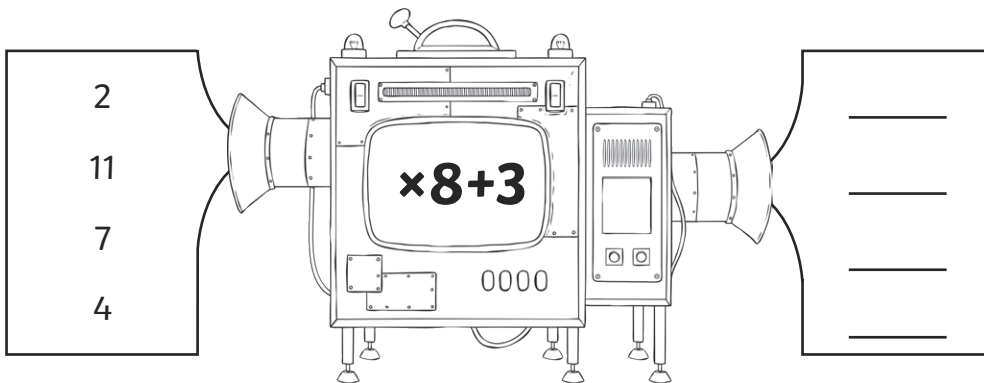
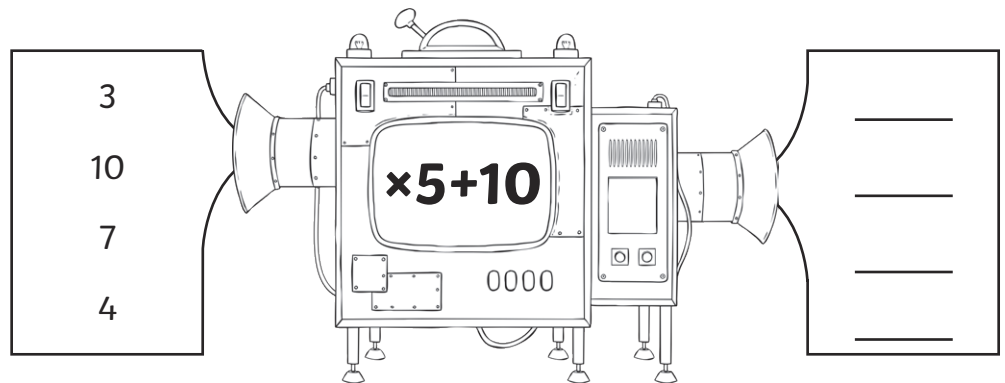
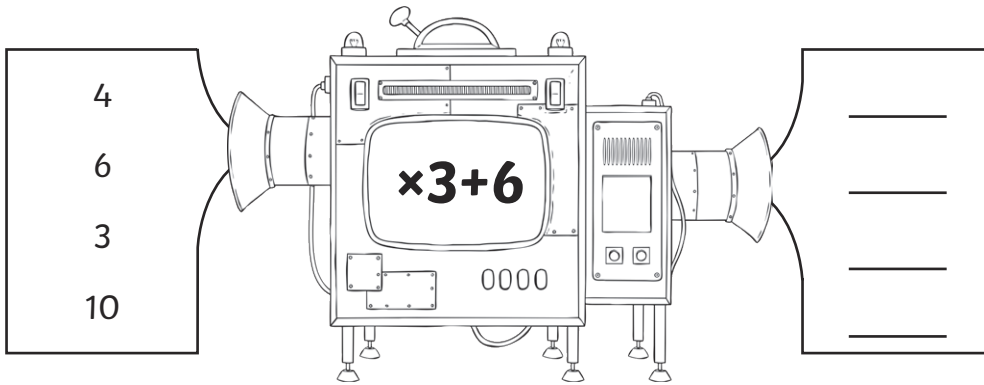


Use the input and output numbers to work out the rule.

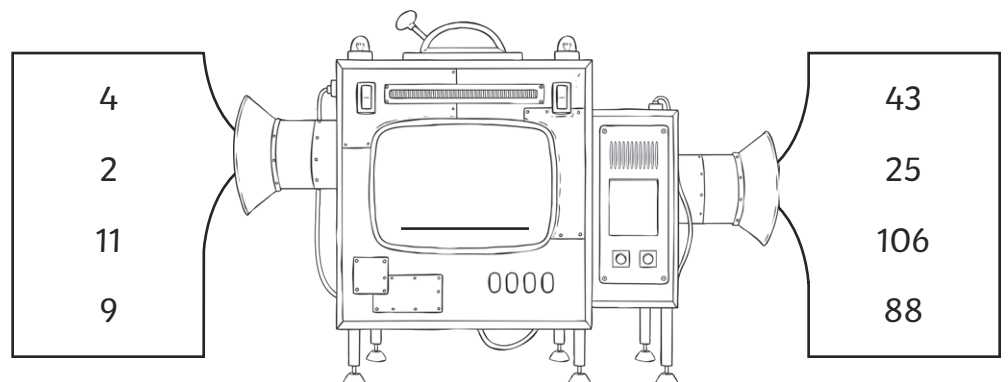
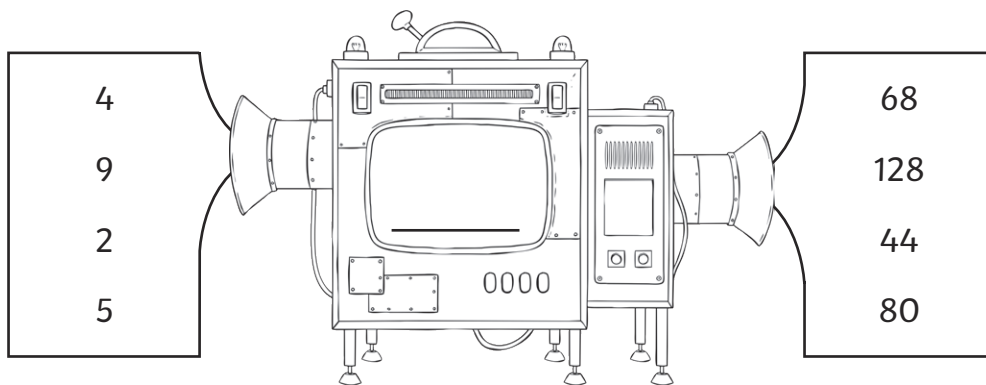
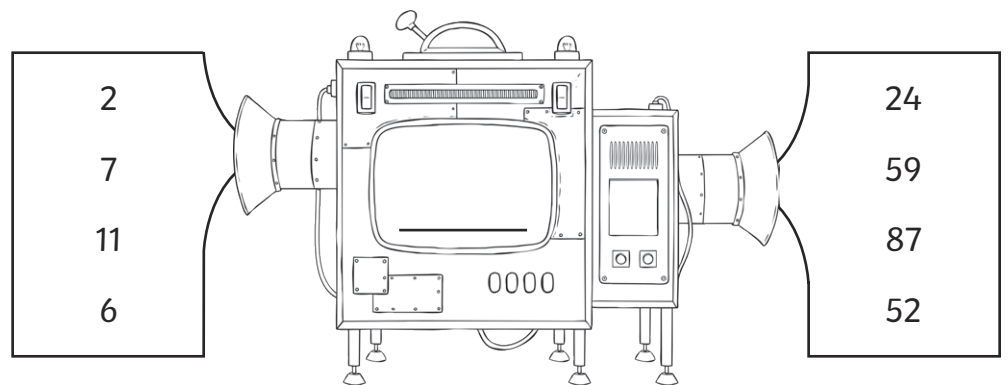
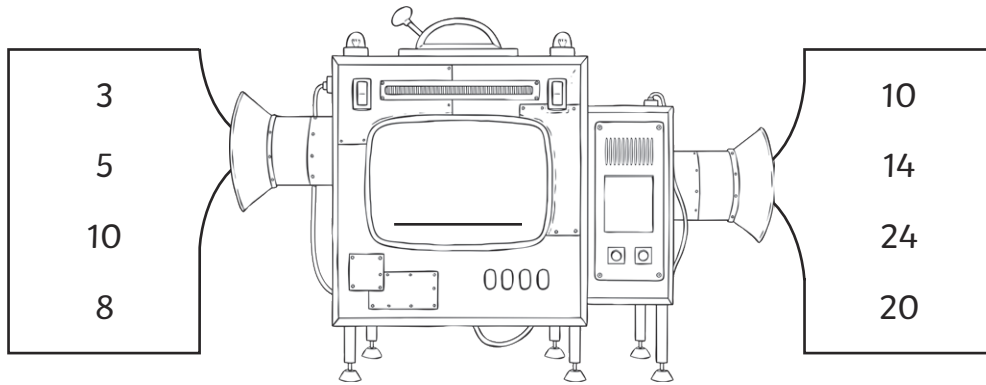


Section 4

Two step rules: Complete the missing output numbers, on the right side of the machine, by applying the rule in the middle of the machine.

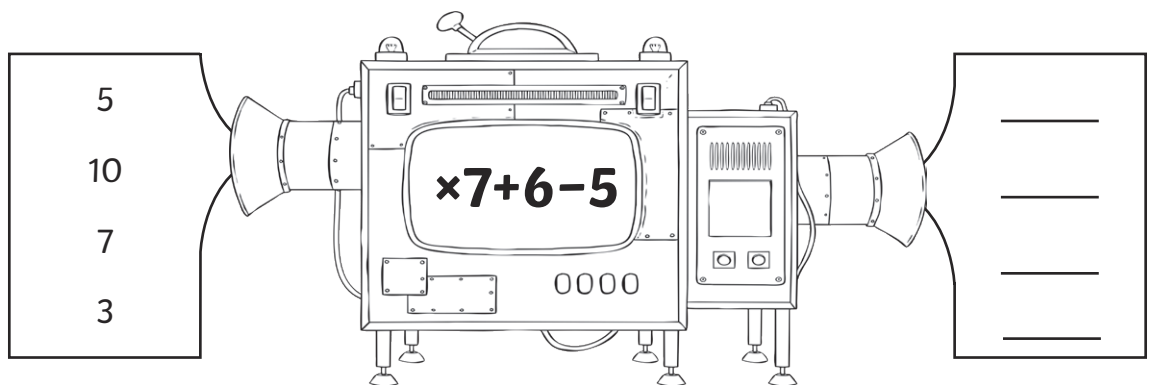
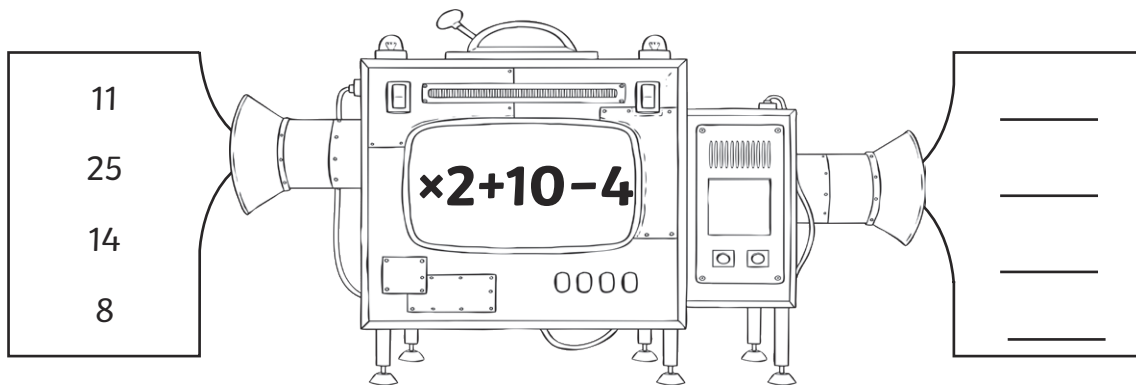


Use the input and output numbers to work out the two step rule.

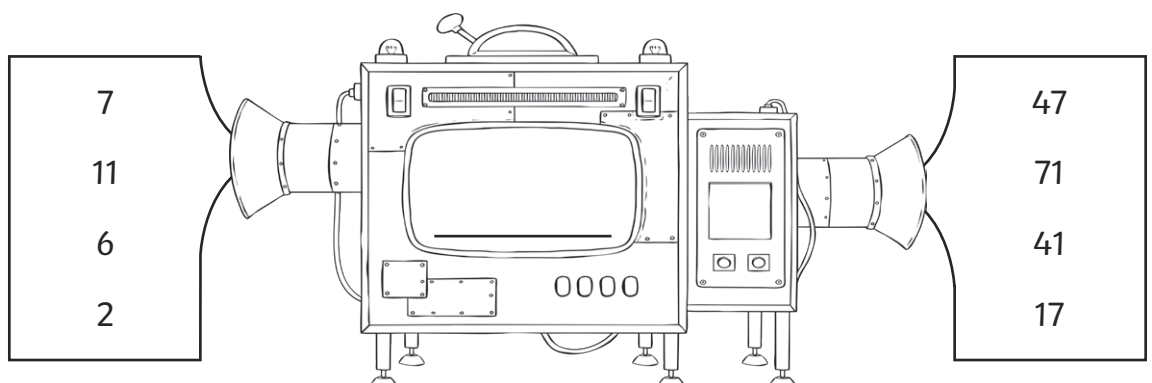
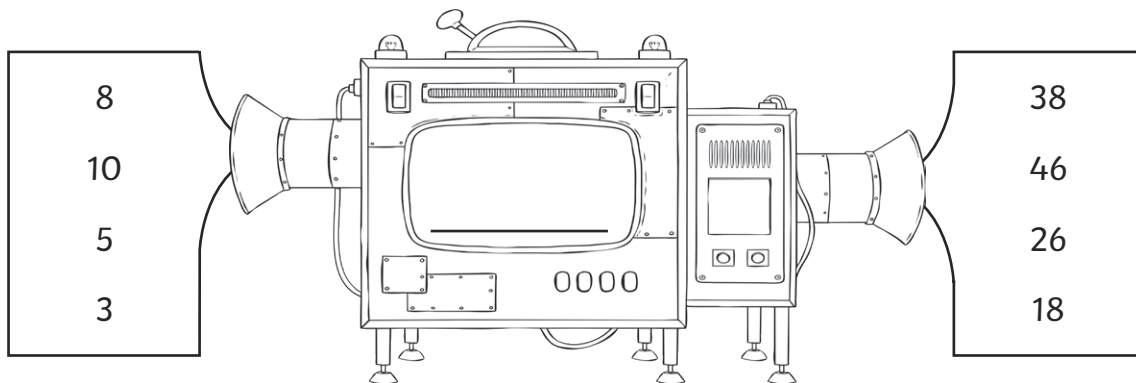


Section 5

Three step rules: Complete the missing output numbers, on the right side of the machine, by applying the three step rule in the middle of the machine.



Use the numbers to work out a possible three step rule.



Section 6

Look carefully at what is missing. It could be numbers or a rule.
In this last section, complete the missing sections of the machines.

