

Discussion Problems

Step 2: Find a Rule – Two Step

National Curriculum Objectives:

Mathematics Year 6: (6A1) [Express missing number problems algebraically](#)

Mathematics Year 6: (6A2) [Use simple formulae](#)

About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 6 Algebra](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Find a Rule – Two Step

1. Detective Dave is investigating different ways to reach the target number below.

Inputs:		Functions:	
7	18	$\times 4$	$\div 5$
13.5	20	$\times 11$	$+ 50.5$
5.5	9	$\div 3$	$- 37.8$
18	27	$+ 72$	$\times 3$



Target Number:

400

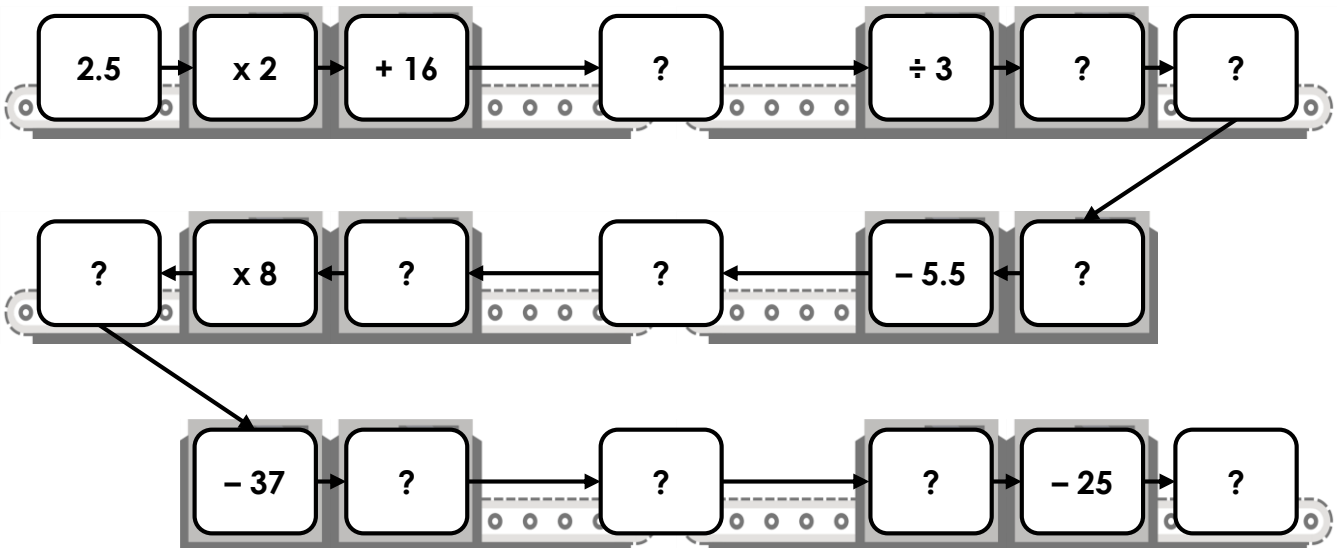
He has compiled a selection of different inputs and functions in the table above.

By selecting an input and combining two different functions to create a two-step function, explore the different combinations to create an output as close to the target number as possible.

DP

2. Create your own functions to fill in the missing functions in the function machine below. The same function cannot be used more than once.

Start:



Explore different possible solutions.

DP

Find a Rule – Two Step

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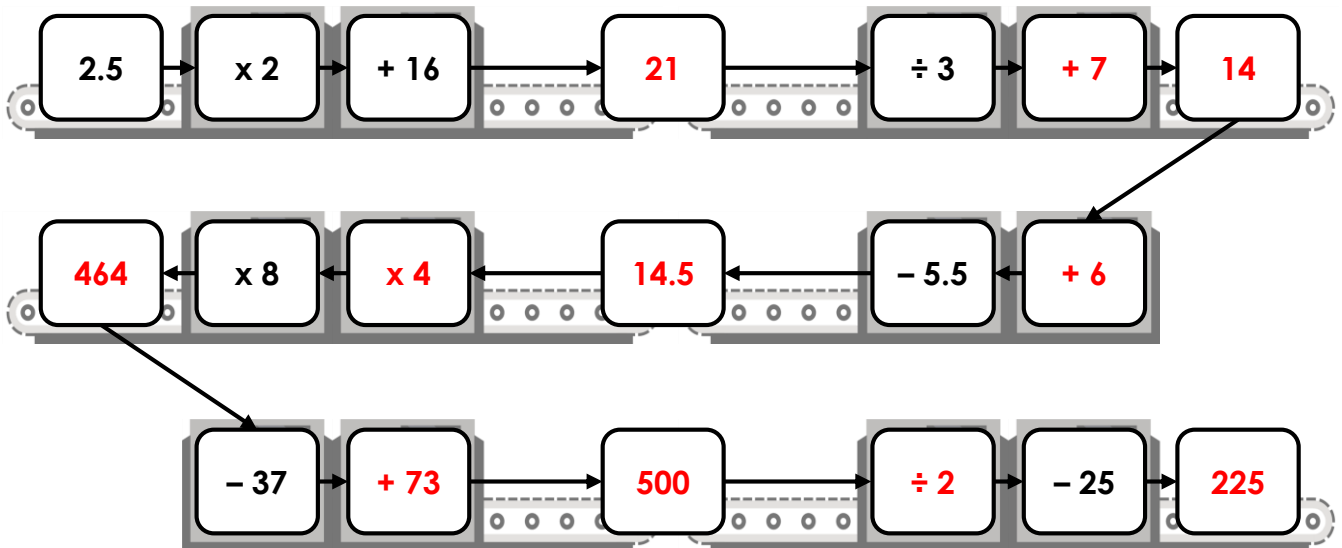
Various answers, for example:

$9 \times 11 \times 4 = 396.$

DP

2. Create your own functions to fill in the missing functions in the function machine below. The same function cannot be used more than once.

Start:



Explore different possible solutions.

Various answers, for example:

As shown above.

DP