Discussion Problems
Step 3: Forming Expressions

National Curriculum Objectives:

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

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.

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Forming Expressions

1. Albus the Alchemist is making a potion but he needs a certain expression to create gold.



To strike gold, the expression must have:

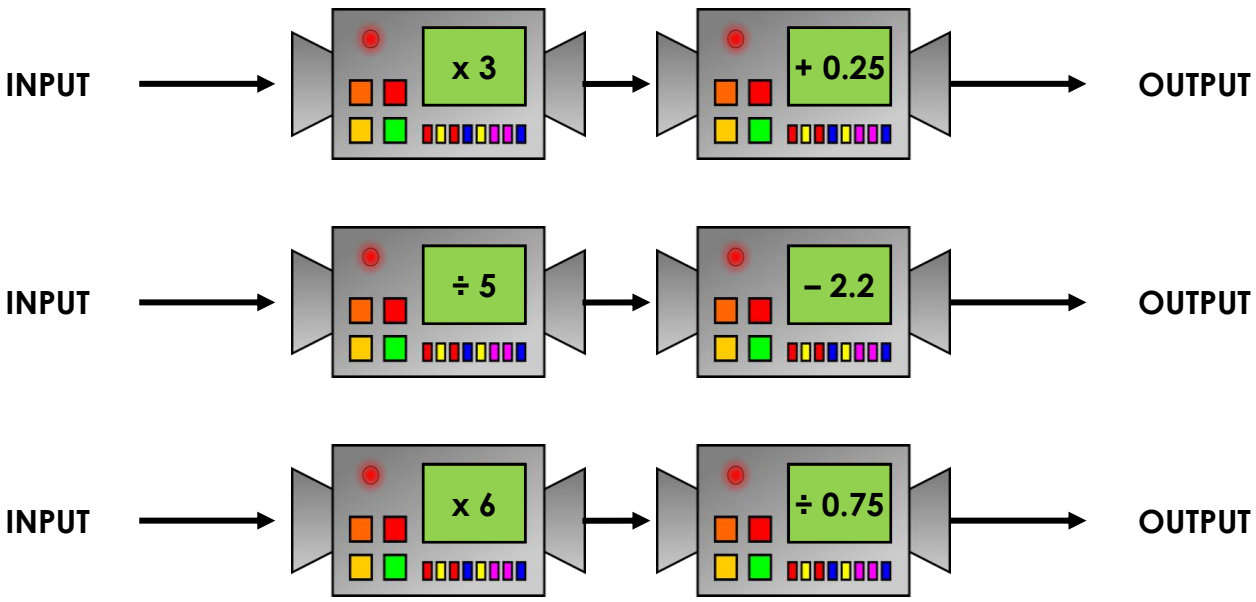
- ★ A 'y' that has been multiplied by an odd number less than 9.
- ★ A square number within the expression.
- ★ A negative or a decimal number.
- ★ Have 2 or more operations.



Investigate the different expressions that can be created using the potions above so that Albus the Alchemist can create gold!

DP

2. Bob has found that if he changes the order of these functions, it changes the expression.



Explore other pairs of functions and investigate whether this is always the case. Remember to use a range of functions.

DP

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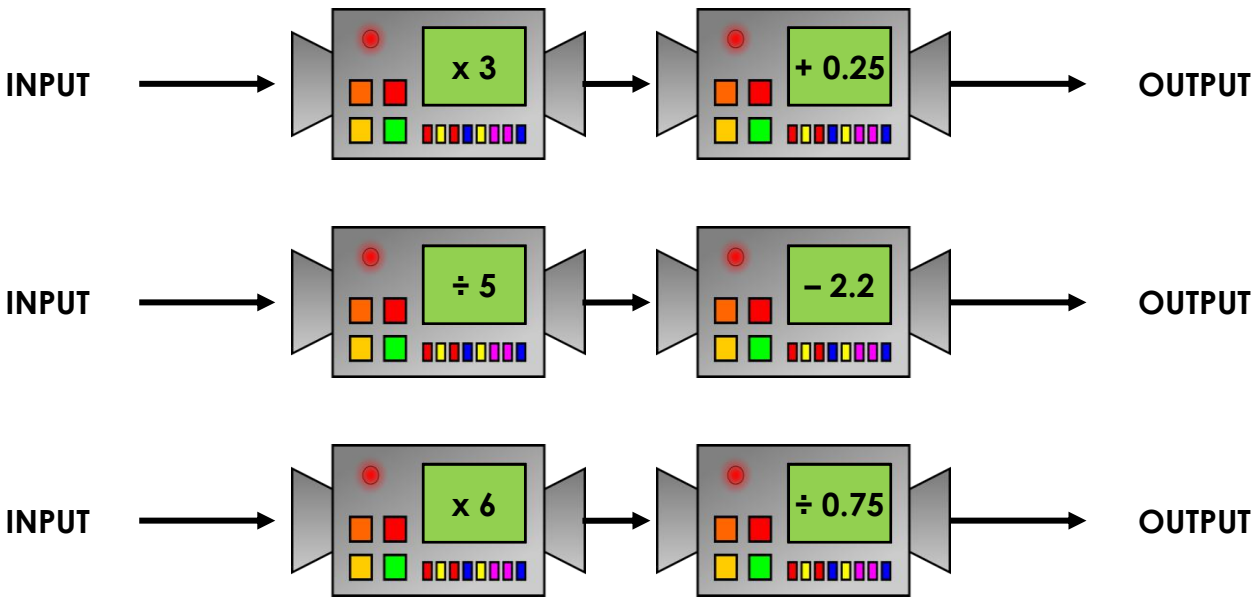


Investigate the different expressions that can be created using the potions above so that Albus the Alchemist can create gold!

Various answers, for example: $7y + 0.75 \div 4$

DP

2. Bob has found that if he changes the order of these functions, it changes the expression.



Explore other pairs of functions and investigate whether this is always the case. Remember to use a range of functions.

This is not always the case. There are various answers to prove this statement, for example: x x 4 x 3 and x x 3 x 4 will both be 12x.

DP

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