

## Arithmetic

1.  $4,592 \div 7$

2.  $5^3 - 52 \div 4$

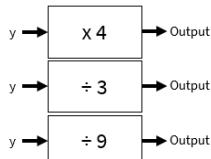
3.  $\frac{4}{11} \div 5$

4.  $4.7 \times 7.4$

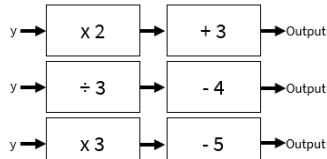
## Practice: Forming Expressions

5. Recap: In maths, why are letters sometimes used instead of numbers? Why can this get confusing (think about the symbol for multiplication)?

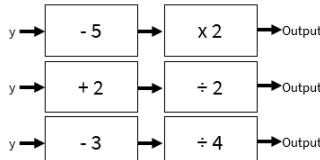
7. Write the expressions to match these function machines.



9. Write the expressions to match these function machines.



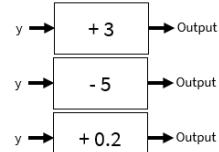
11. Write the expressions to match these two-step function machines.



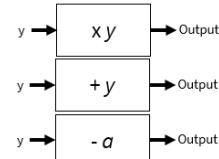
13. Lewis is forming an expression for the function machine. He writes:  $y+3y \times w$   
Is this correct?



6. Write the expressions to match these function machines.



8. Write the expressions to match these function machines.



10. What does 'expression' mean in algebra?

14. Create at least 3 different function machines with two functions that would form this expression.

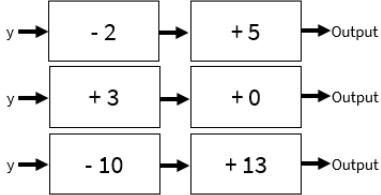
$y+3$

You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$4,592 \div 7$	656
2	$5^3 - 52 \div 4$	112
3	$\frac{4}{11} \div 5$	$\frac{4}{55}$
4	$4.7 \times 7.4$	34.78
5	In maths, why are letters sometimes used instead of numbers?	Letters are used to generalise relationships between quantities. This eliminates the need to give individual specific examples containing actual values. This can be confusing as the letter x looks similar to the multiplication symbol.
6	Write the expressions to match these function machines.	$y+3, y-5, y+0.2$
7	Write the expressions to match these function machines.	$4y, \frac{y}{3}, \frac{y}{9}$
8	Write the expressions to match these function machines.	$y^2, 2y, y-a$
9	Write the expressions to match these two-step function machines.	$2y+3, \frac{y}{3}-4, 3y-5$
10	What does 'expression' mean in algebra?	An expression is a statement that is written in algebraic form including any combination of letters, symbols and numbers.
11	Write the expressions to match these two-step function machines.	$2(y-5)$ or $(y-5)x2$ or $2x(y-5)$ $(y+2)/2$ or $(y+2)\div 2$ $(y-3)/4$ or $(y-3)\div 4$
12	Write the expressions to match these two-step function machines.	$y^2+a$ $\frac{y}{z}-b$ $3by$ or $3yb$
13	Is Lewis correct?	This is incorrect, he has written $3y$ which is the same as $3 \times y$ , which is not what he has been asked to do. The correct answer is $(y+3)w$ or $w(y+3)$ or $(y+3)xw$ or $wx(y+3)$ .
14	Create at least 3 different function machines with two functions that would form this expression.  $y+3$	Possible answers include  <pre> graph LR     subgraph Machine1         A1[y] --&gt; B1[-2]         B1 --&gt; C1[+5]         C1 --&gt; D1[Output]     end     subgraph Machine2         A2[y] --&gt; B2[+3]         B2 --&gt; C2[+0]         C2 --&gt; D2[Output]     end     subgraph Machine3         A3[y] --&gt; B3[-10]         B3 --&gt; C3[+13]         C3 --&gt; D3[Output]     end </pre>