

Manual Operations on the Sides

What: Use ff to duplicate the manual ways handling equations as taught in school teachings.

Why: To make sure you understand how to manipulate sides of an equation on your own.

How: Simply try to duplicate what the teacher does to solve an equation by working the sides.

Time To Complete: 3 hours.



Manully set the lhs and rhs variables to some expressions of choice and then commence, step by step, applying the same arithmetic operations to both sides.

In this example, the equation

$$x-3 = 17*y +9$$

is being solved for **y** namely the equation is transformed to a new equation with **y** alone on either side as the solution.

```
lhs = x - 3;  
rhs = 17 * y + 9;  
  
lhs = lhs - 9;  
rhs = rhs - 9;  
  
lhs = lhs / 17;  
rhs = rhs / 17;  
  
show lhs also rhs;  
  
save as sides;
```

Output

"lhs" $\rightarrow (-12 + x)/17$

"rhs" $\rightarrow y$

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