

## Risp 12: Two Repeats

In an idle moment,  
Luke picked two numbers  $x$  and  $y$  with  $0 < x < y < 1$ .  
He wondered how to combine these simply,  
he wrote down the numbers:

$$x + y, xy, x/y, y/x, x - y \text{ and } y - x.$$

He realised to his surprise  
that he had written the same number down twice.

To his further surprise,  
he noticed he had written a second number down twice.

What were his starting numbers?

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