

The cover features a vibrant red background with large, overlapping circular shapes. The left side has a large orange and red circular pattern, while the right side has a blue and red circular pattern. Several red arrows are scattered across the design, pointing in various directions. A white, curled-up corner effect is visible in the bottom right.

# ***Flow Sums***

## **Student Workbook 1**

Published in 2009 by  
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## **Introduction**

**“Flow Sums, Student Workbook 1” contains a suite of thirty arithmetical challenges. In each “Flow Sum”, the student is provided with a gateway number and he / she has to work his / her way through the maze of arrows, following the directions and computational instructions that are provided along the way, to discover the missing answer at the end of the maze.**

**Each “Flow Sum” activity can be planned and implemented as a timed-activity where each participating student is given 40 seconds to complete the challenge. This time frame can be extended or reduced to cater for the ability level and work-rate of the individual student.**

**These number challenges can be planned and implemented to incorporate a combination of mental activity and written activity. Alternatively, the challenges can be organised as activities involving the use of a calculator. A shorter time-frame may be allocated to a student who employs a calculator to perform all the calculations.**

**These timed number challenges are based on the following numerical concepts, skills and competencies:**

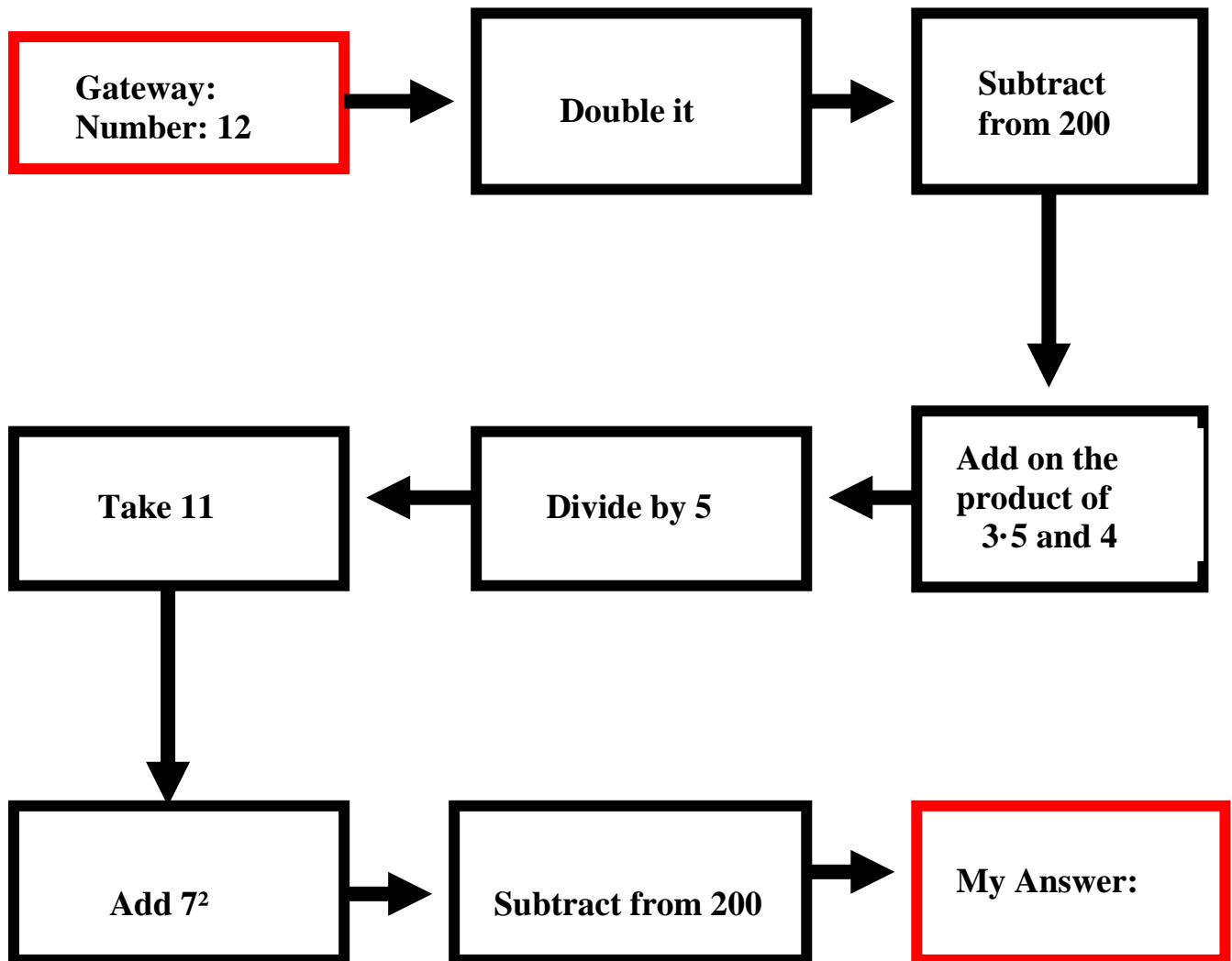
- **whole number computation (addition, subtraction, multiplication, division)**
- **computation involving fractions**
- **computation involving decimals**
- **computation involving percentages.**

**“Flow Sums” are an exciting way to revise, practise and consolidate important computational skills and to enhance numerical understanding in important conceptual domains.**

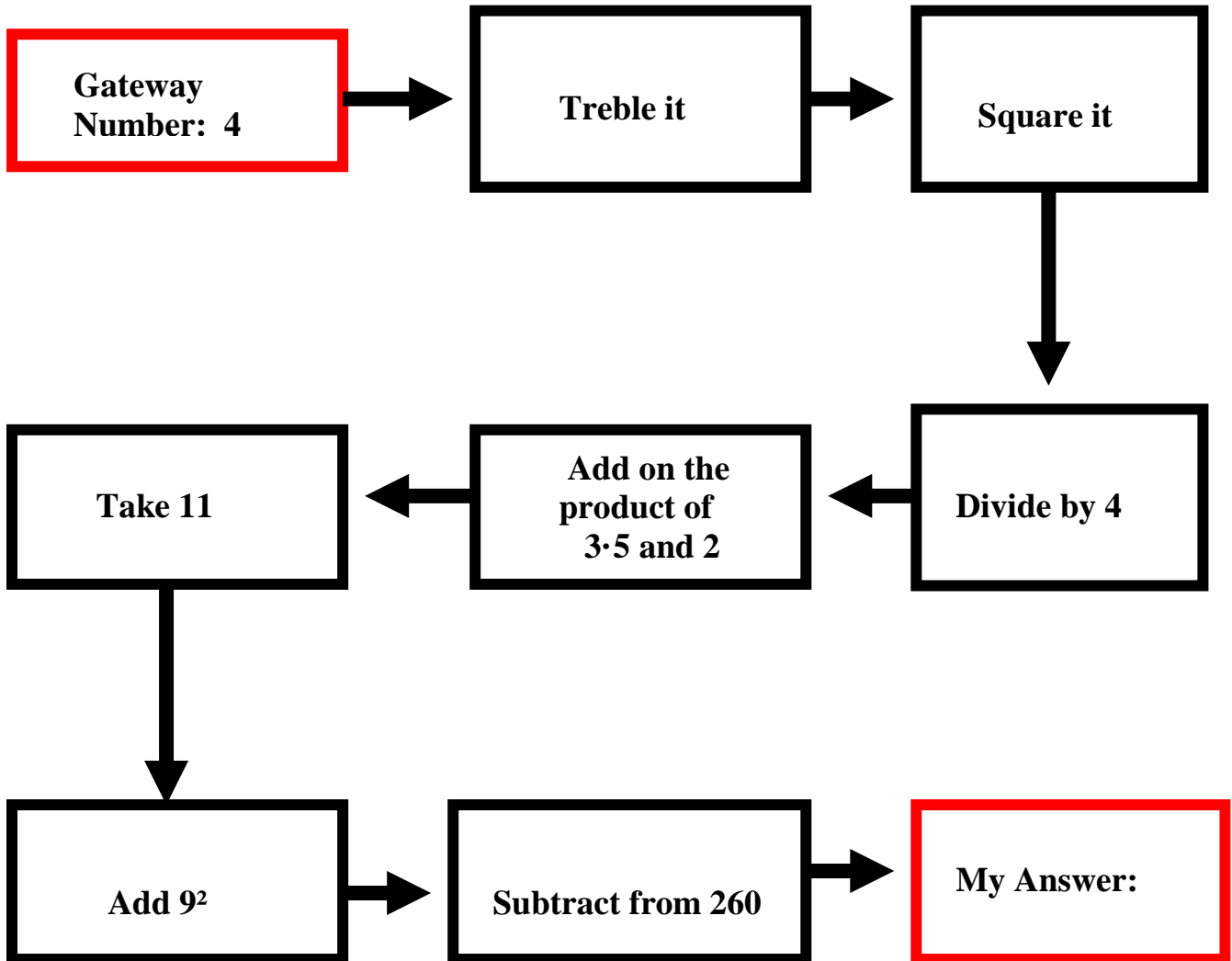
**Each “Flow Sum” challenge can be implemented as an individual activity, where each student works independently. The number challenges can also be operated as collaborative assignments where two (or more) students work together to solve the puzzles.**

**Solutions to these number flow charts are provided in the appendix section (page 34).**

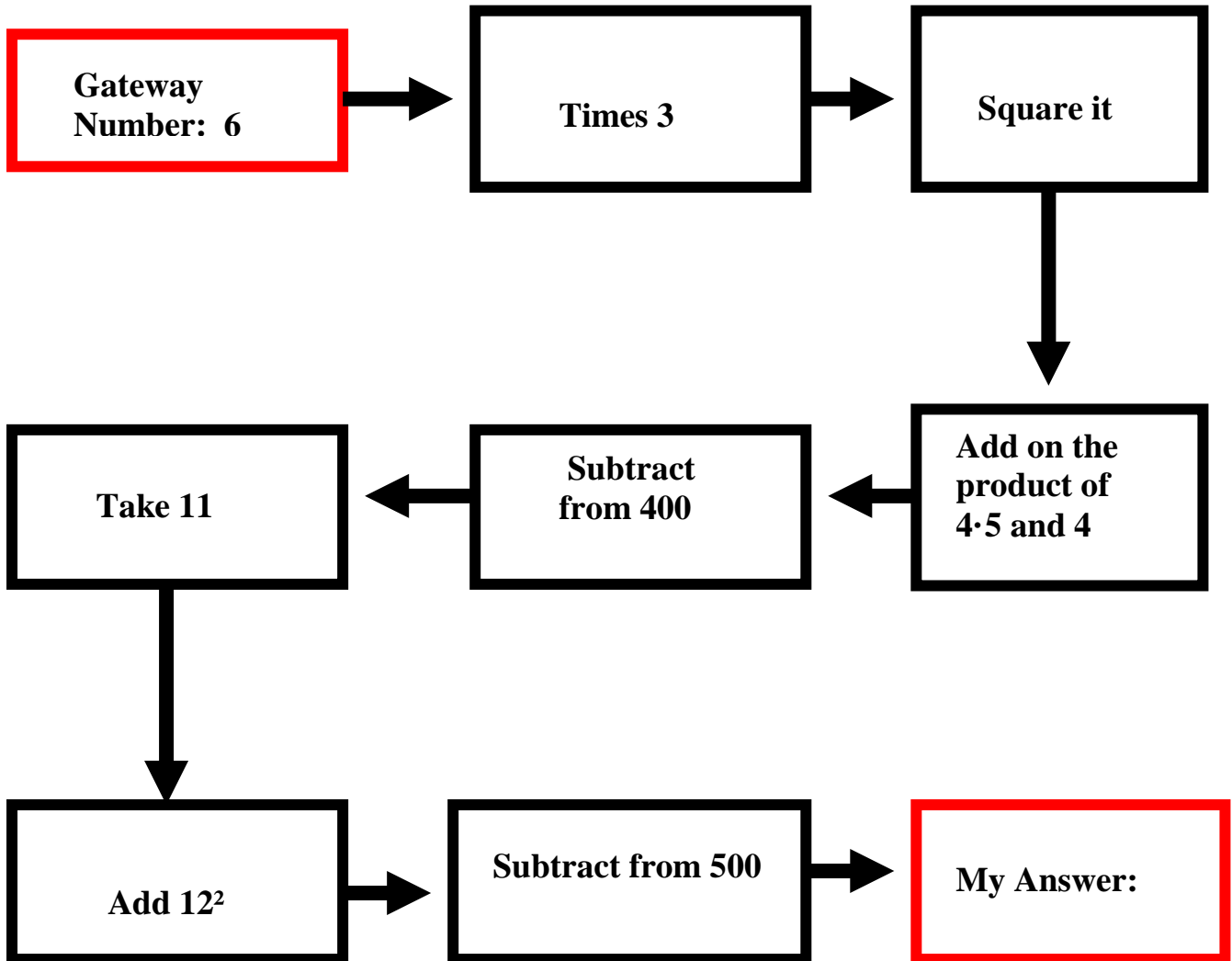
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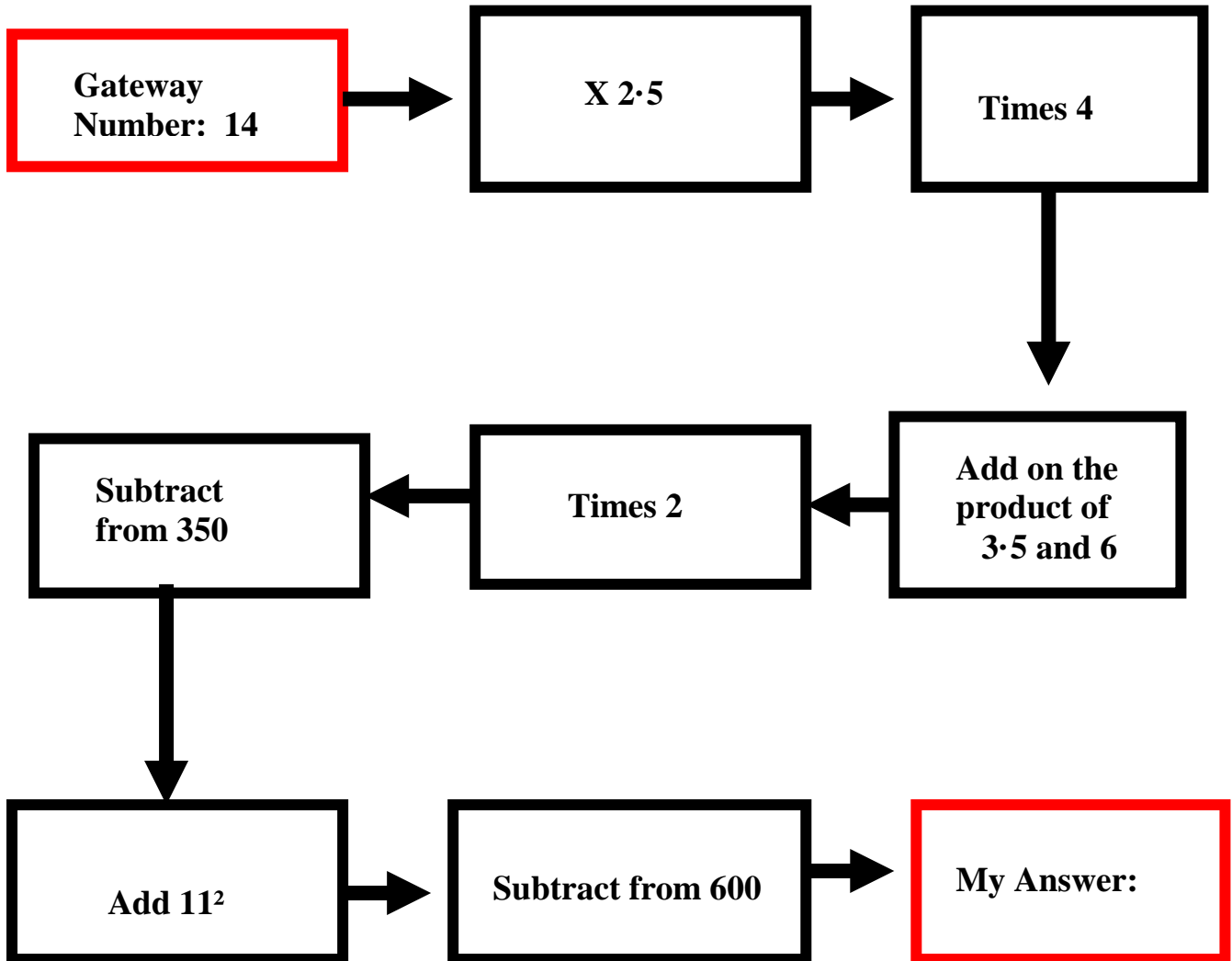
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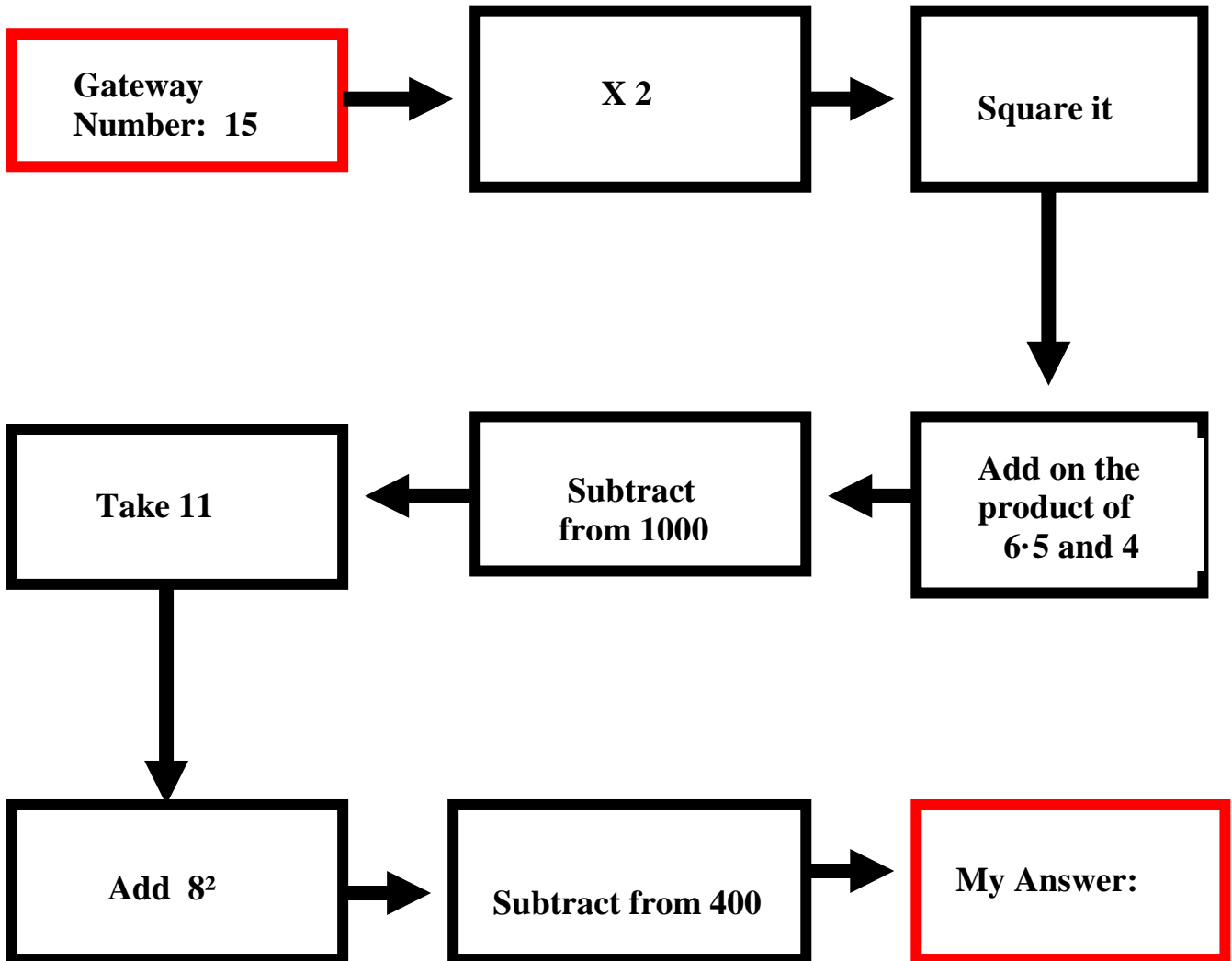
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# Q 4

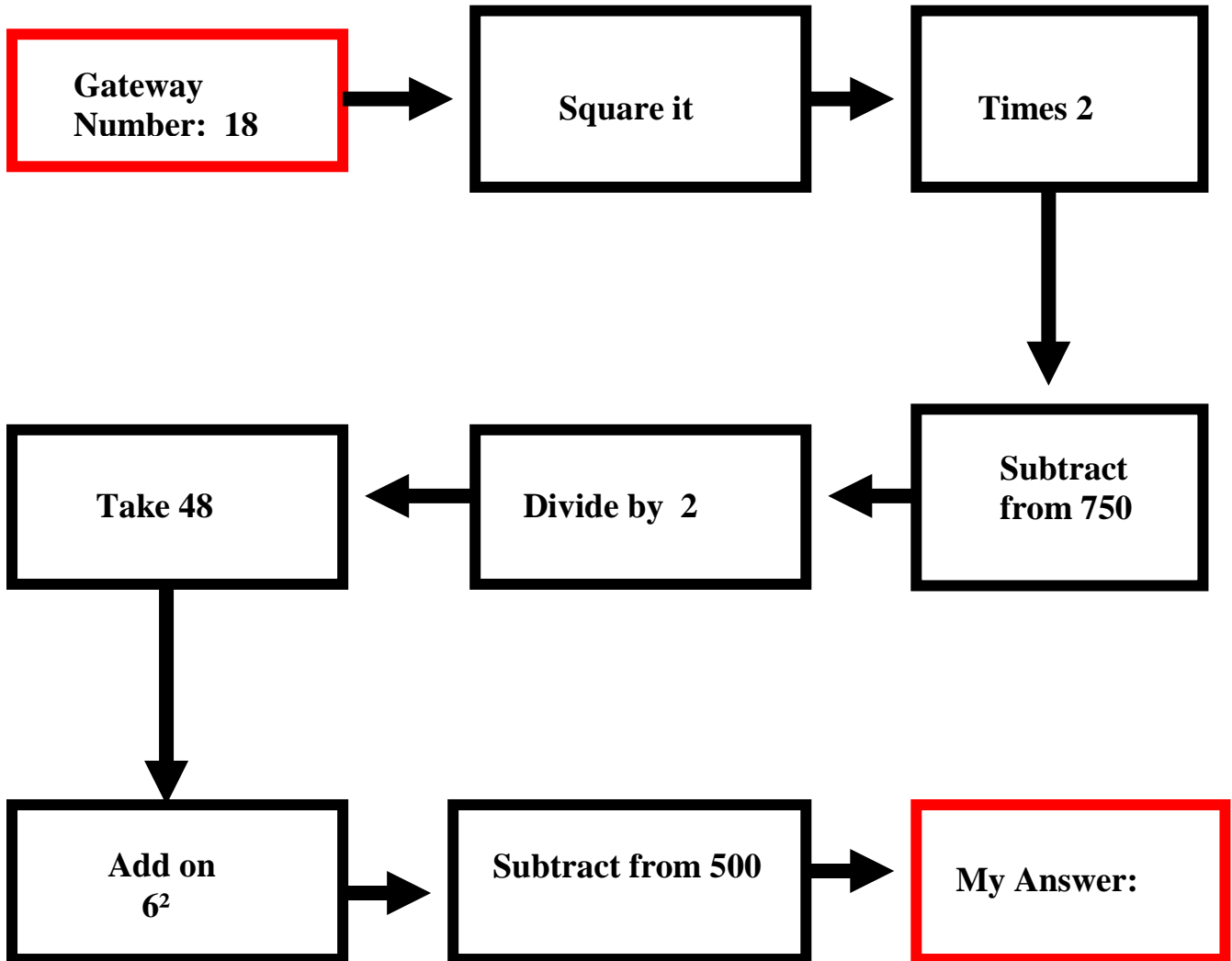


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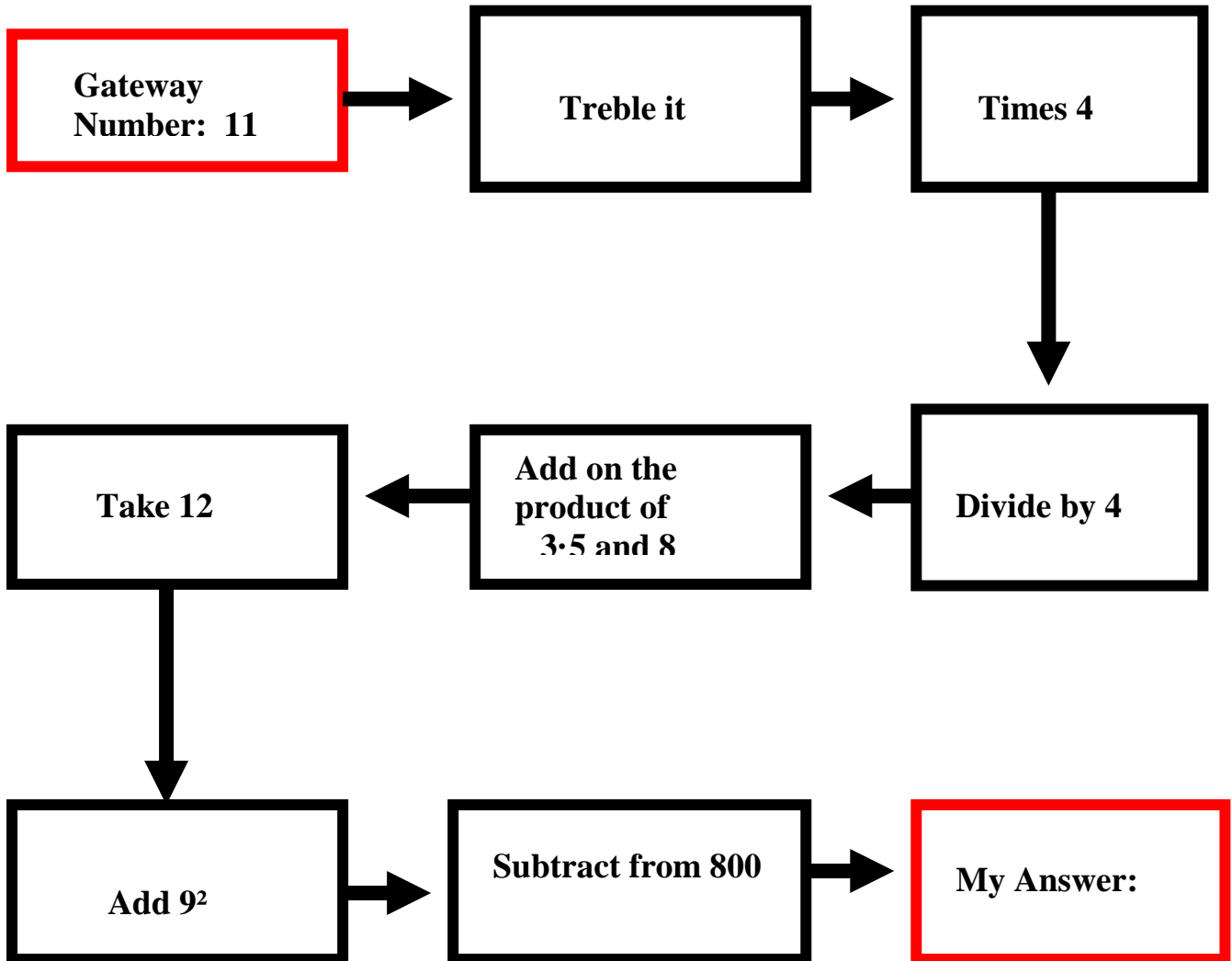




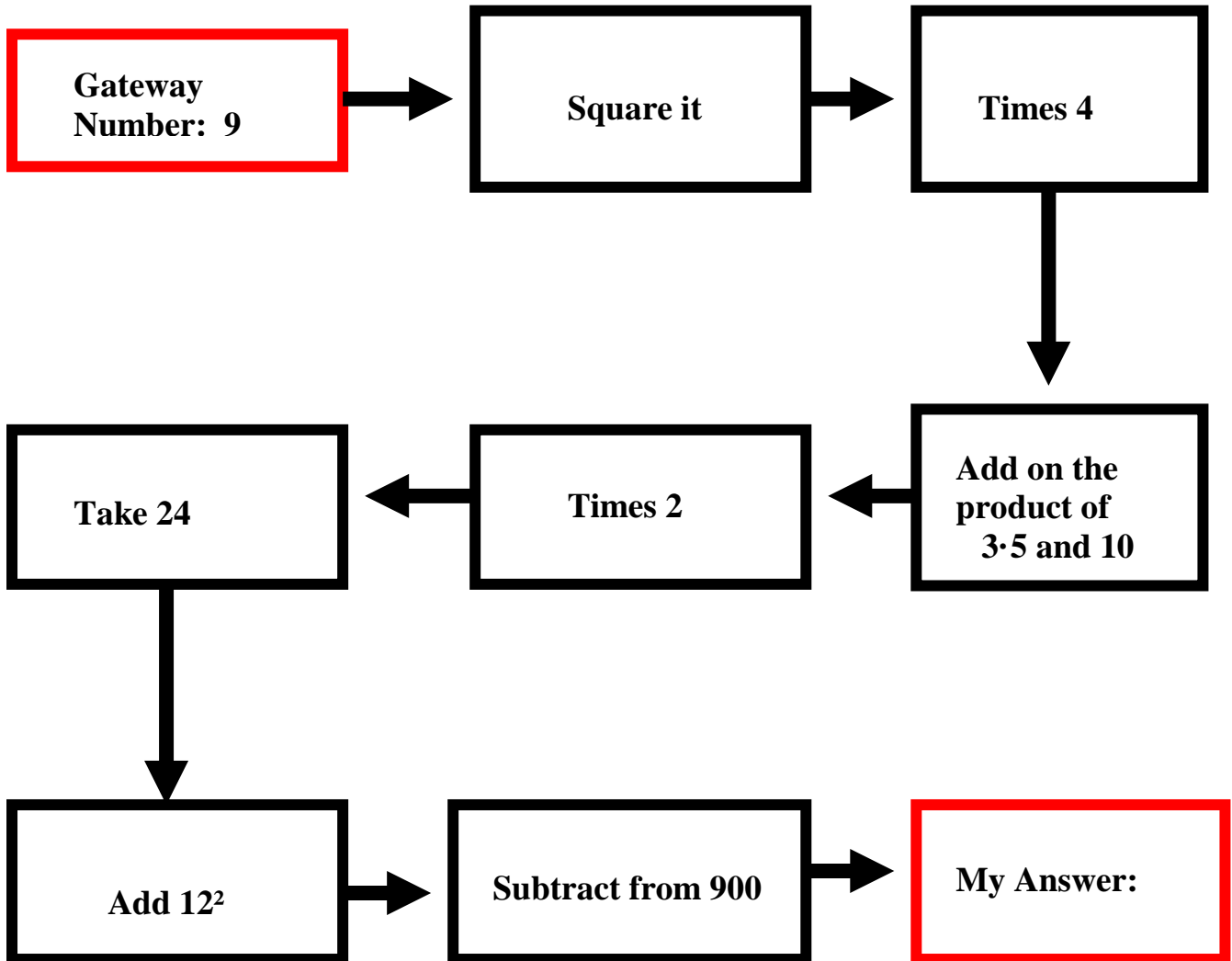
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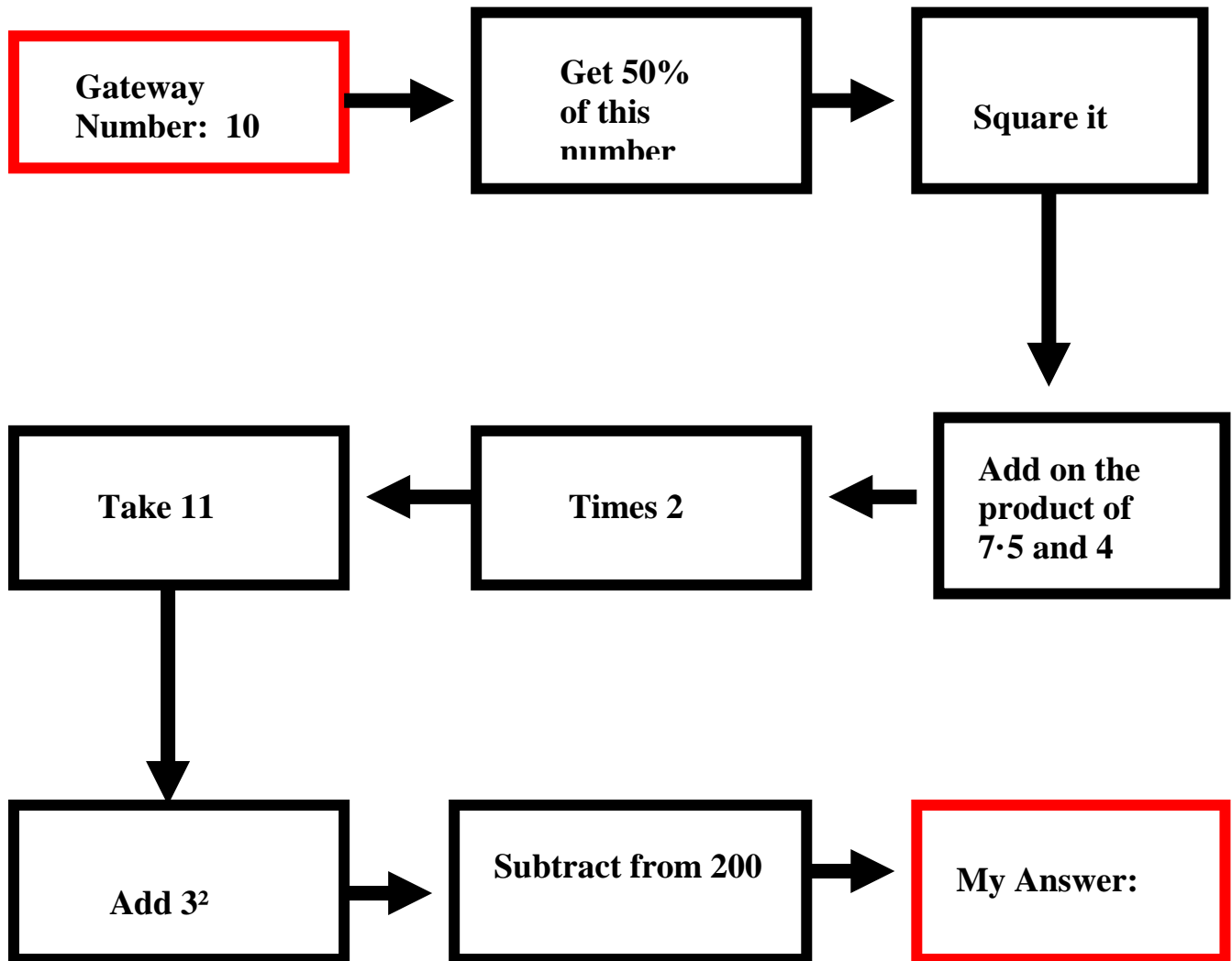
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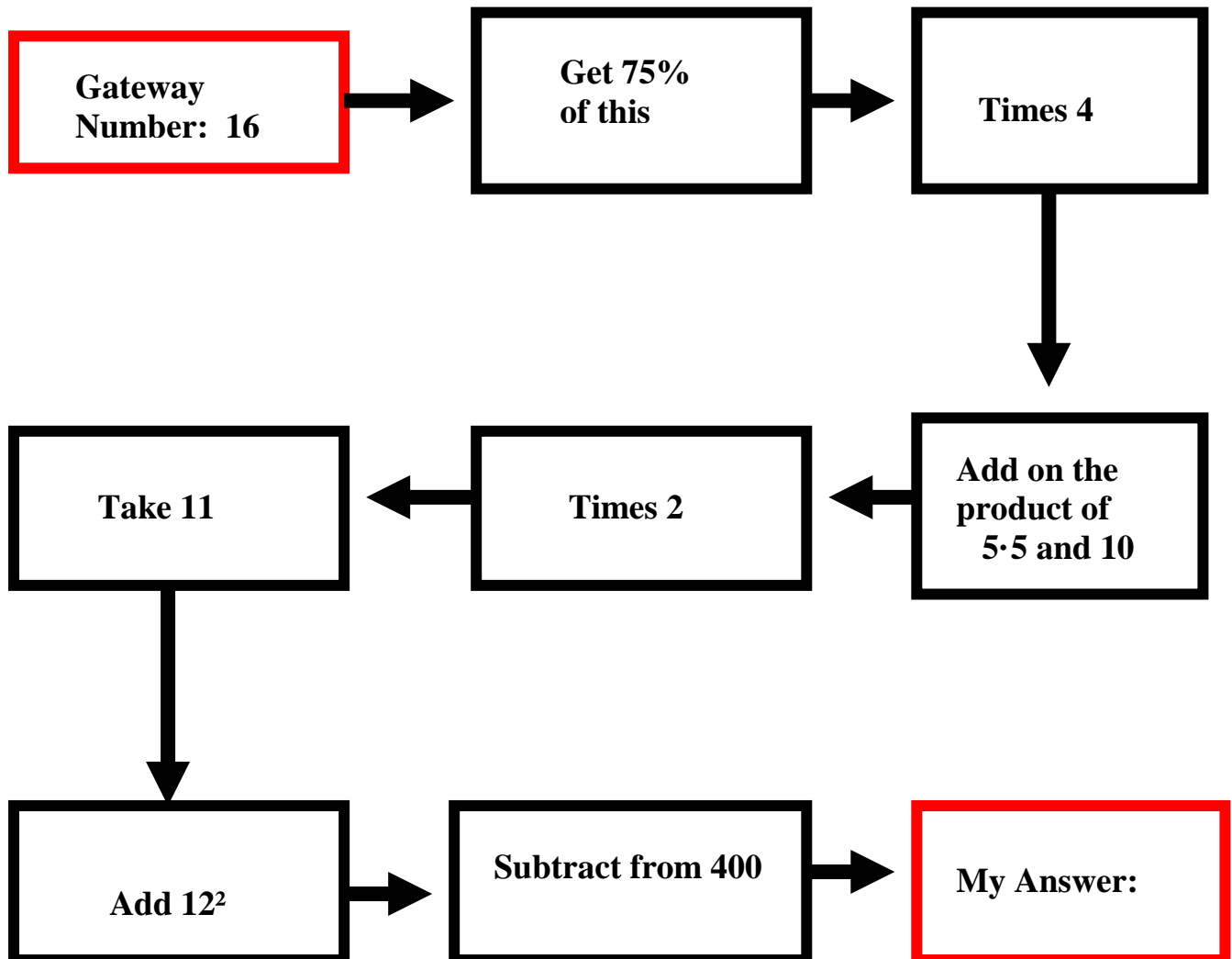
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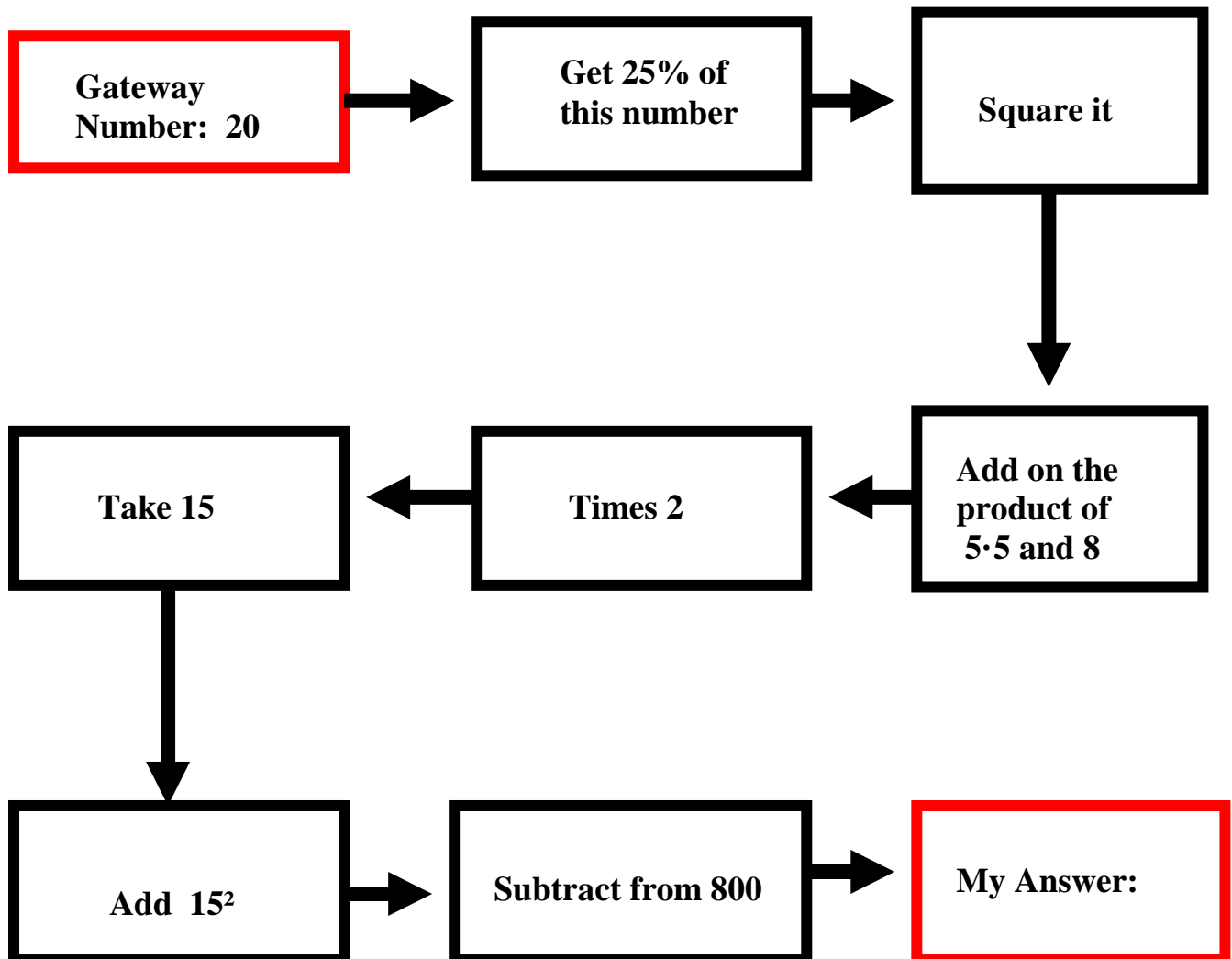
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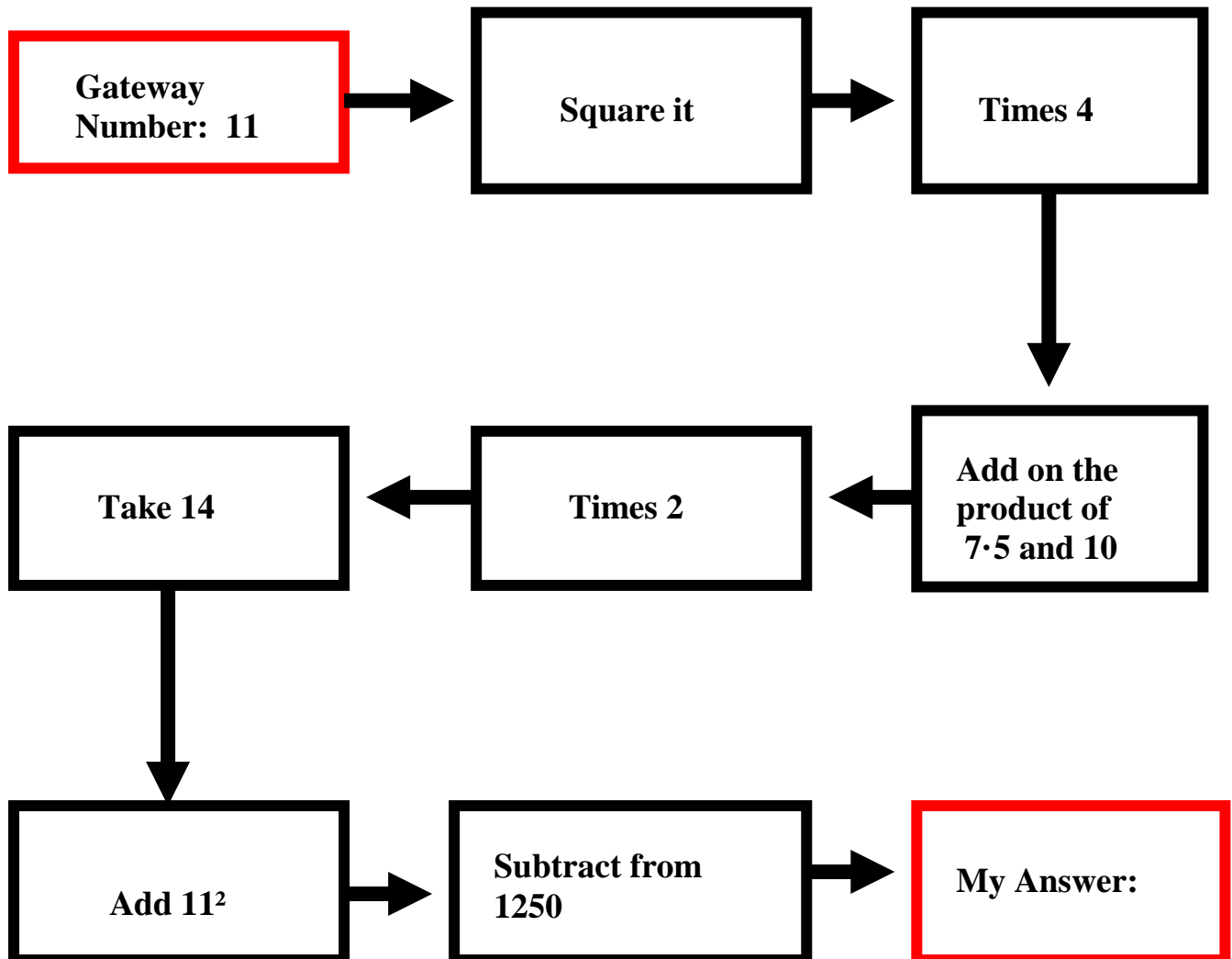
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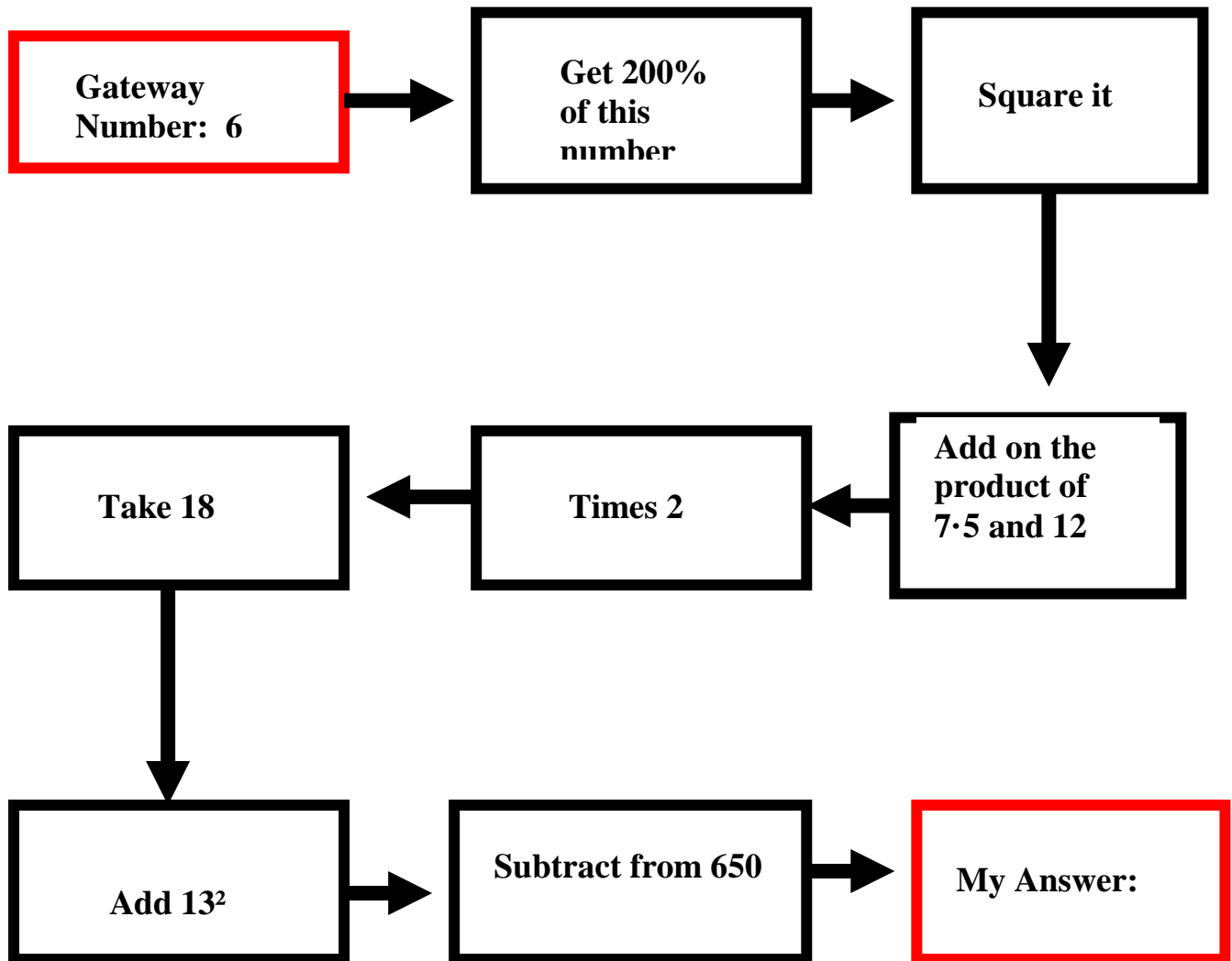
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# Q 12

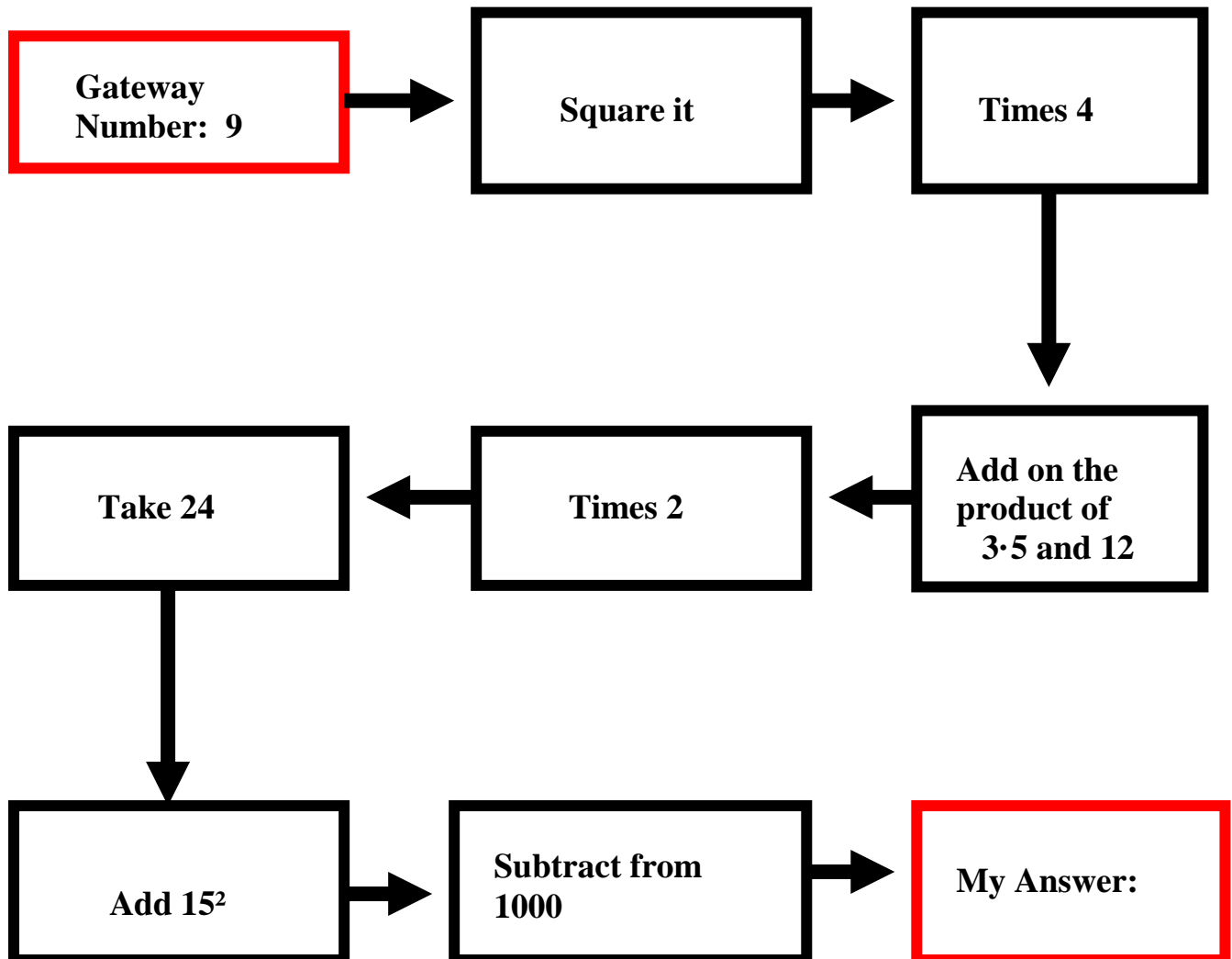


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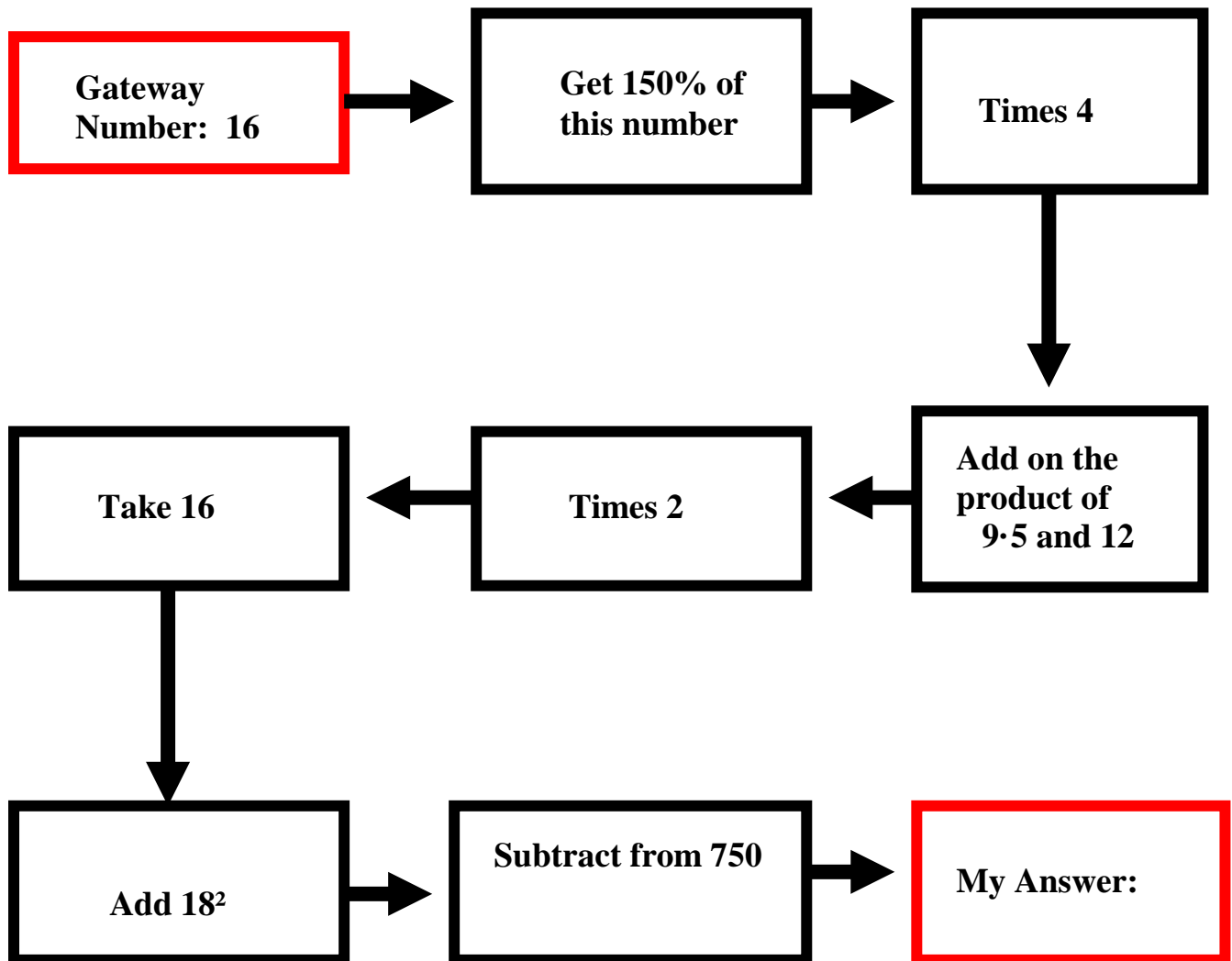




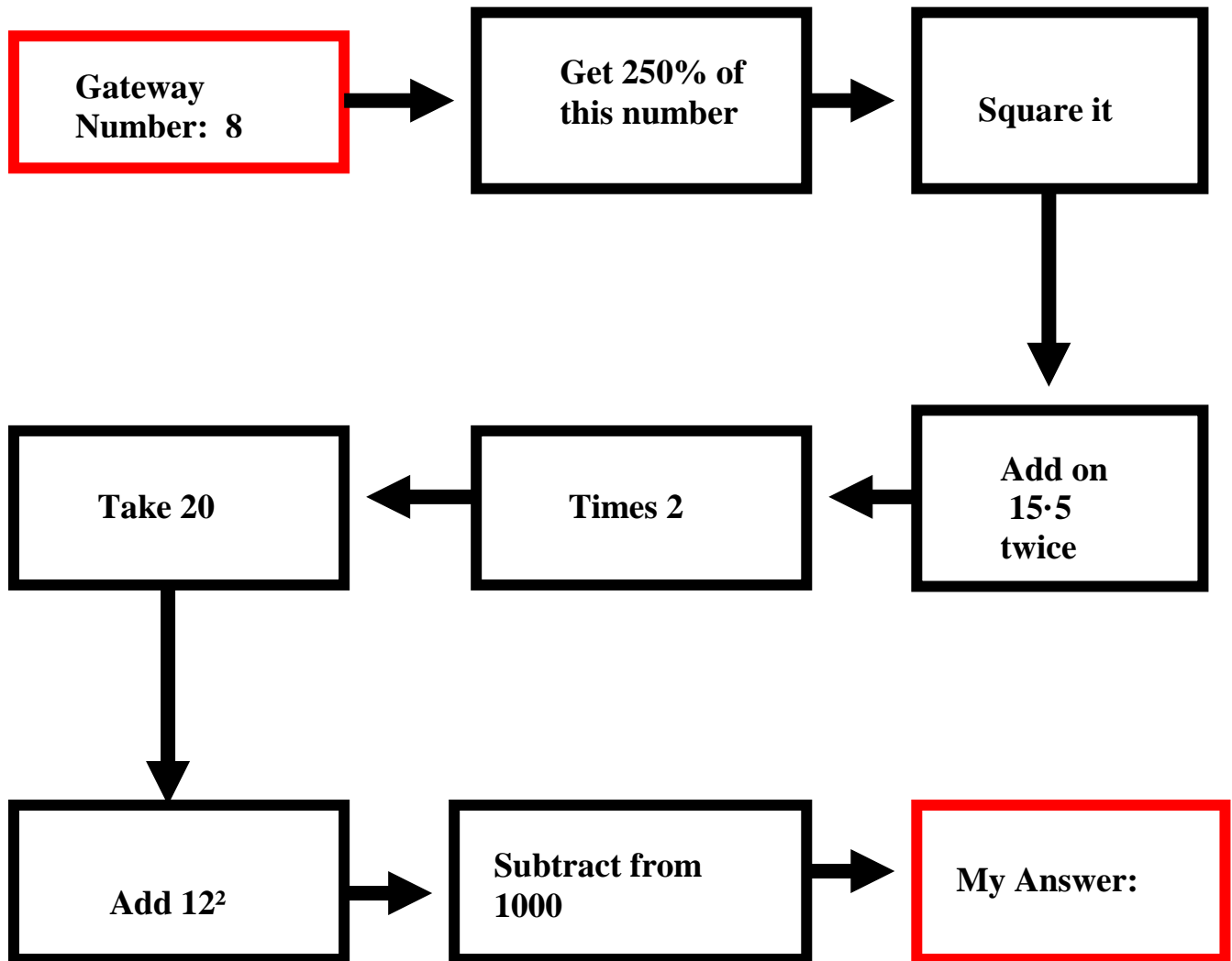
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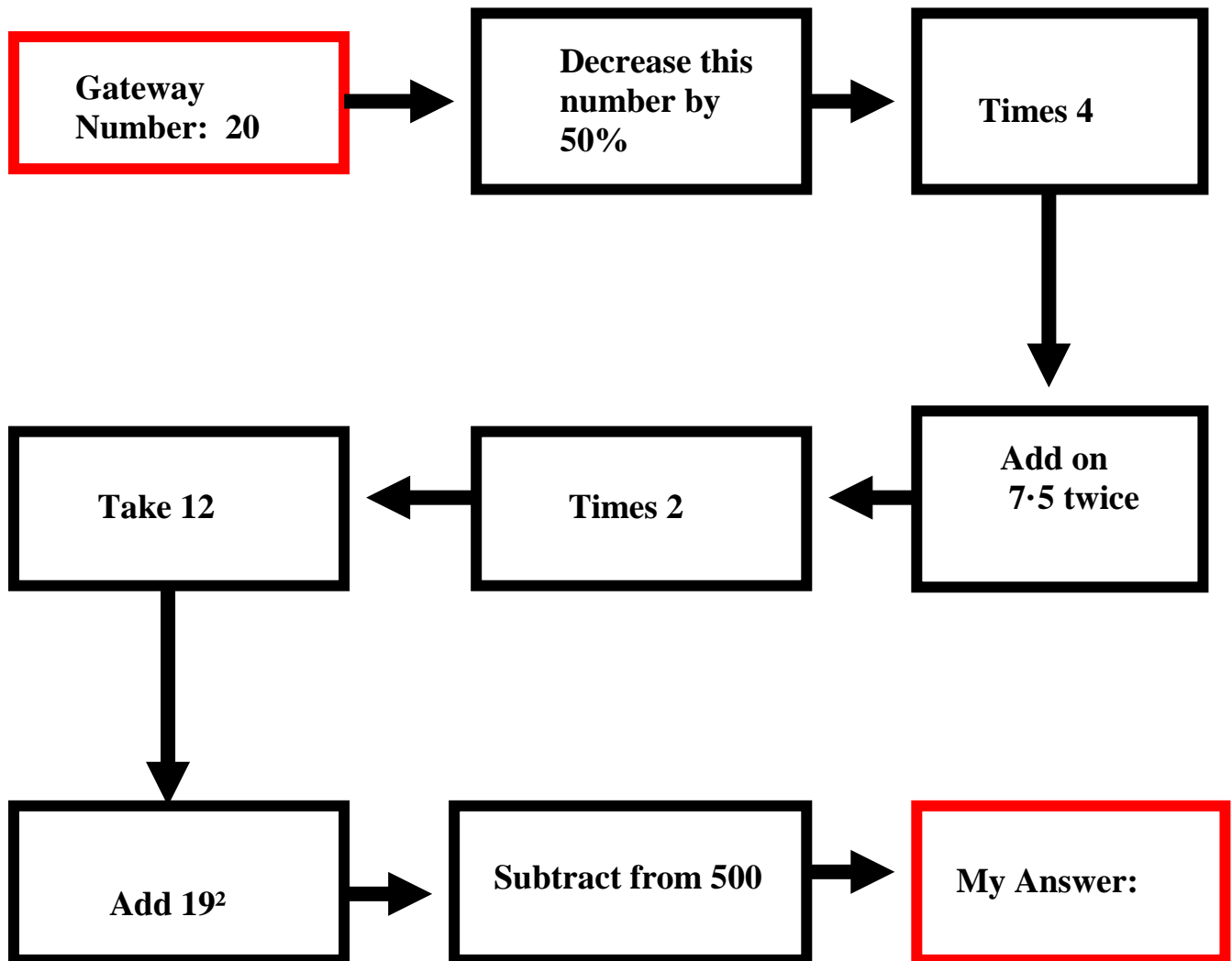
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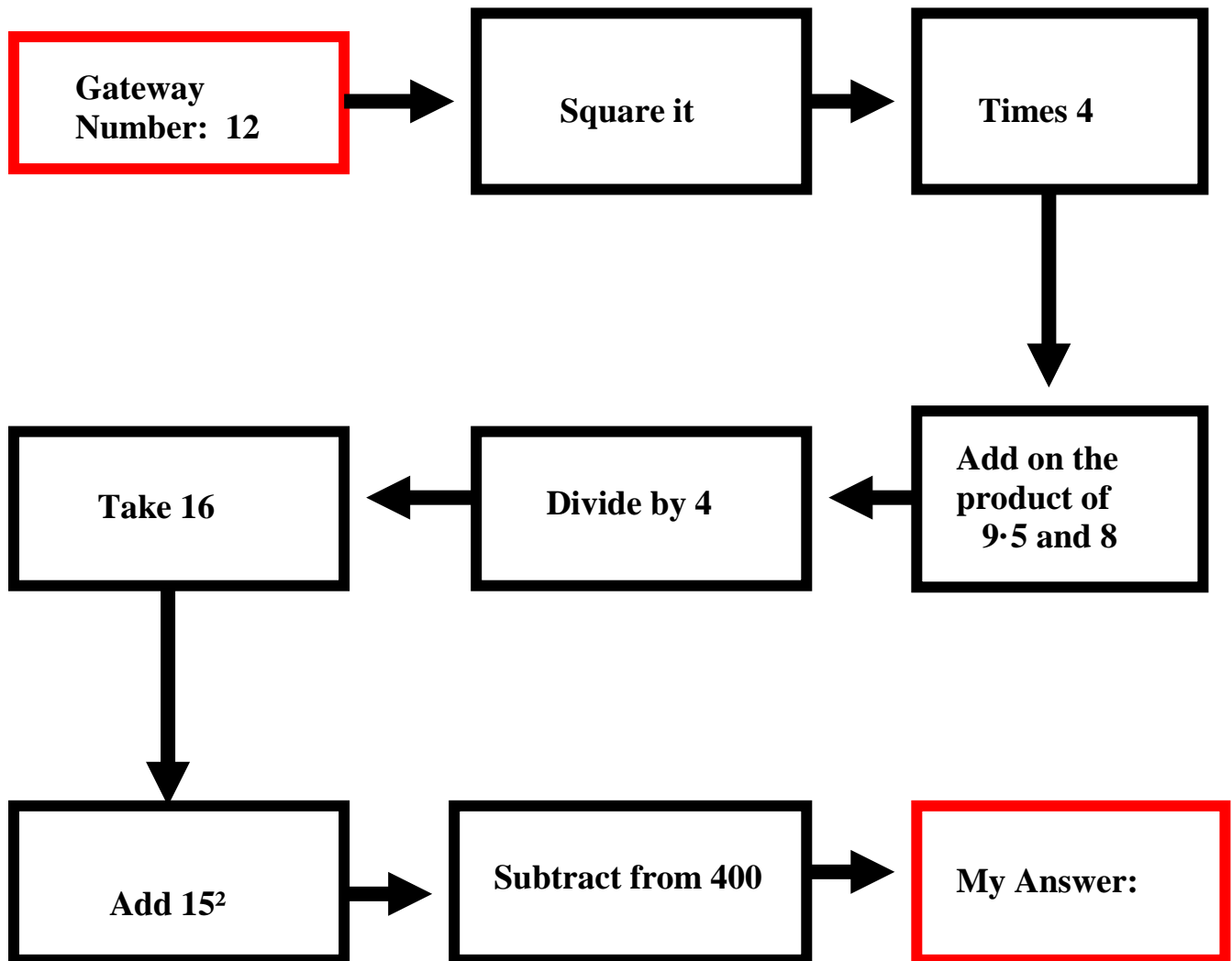
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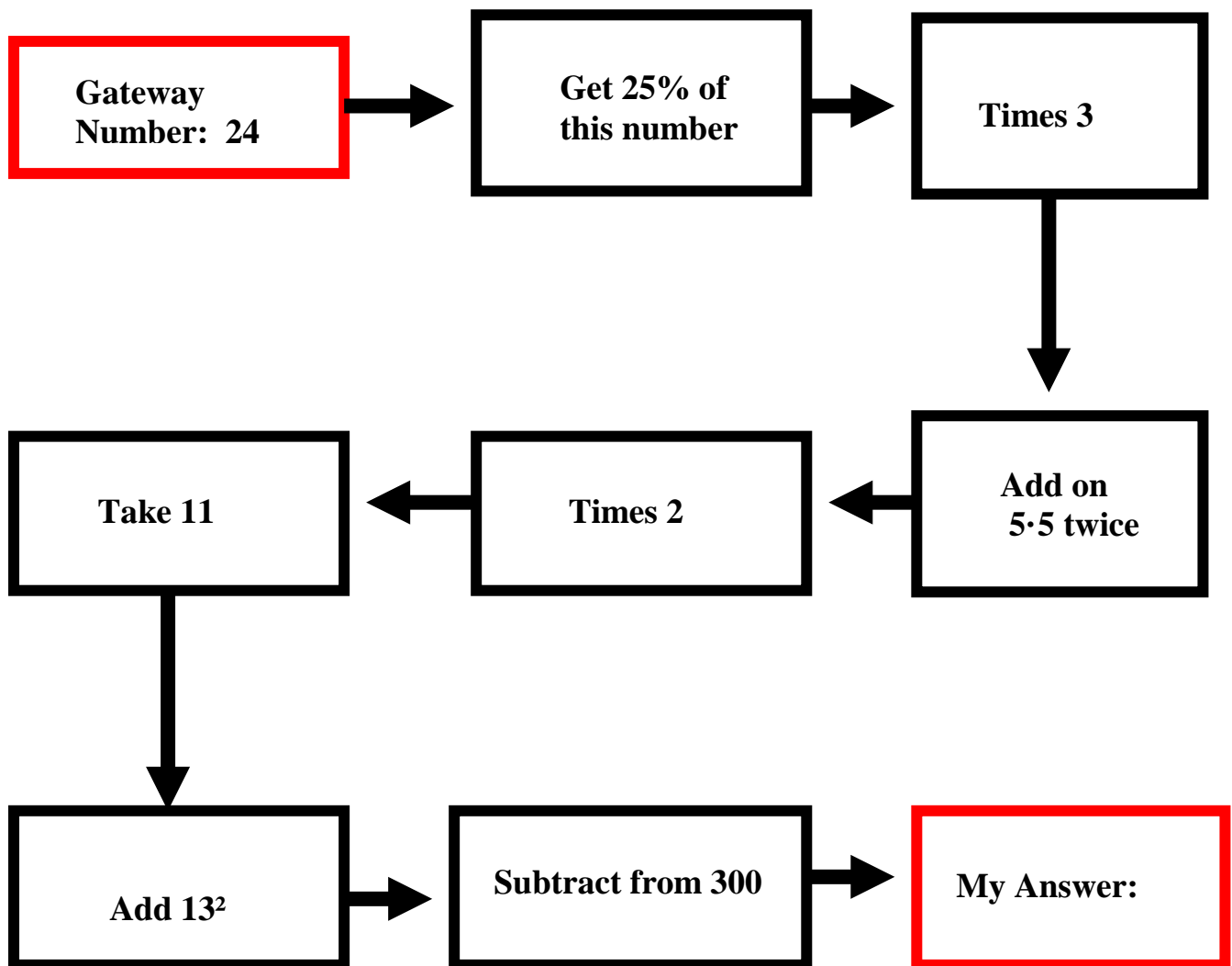
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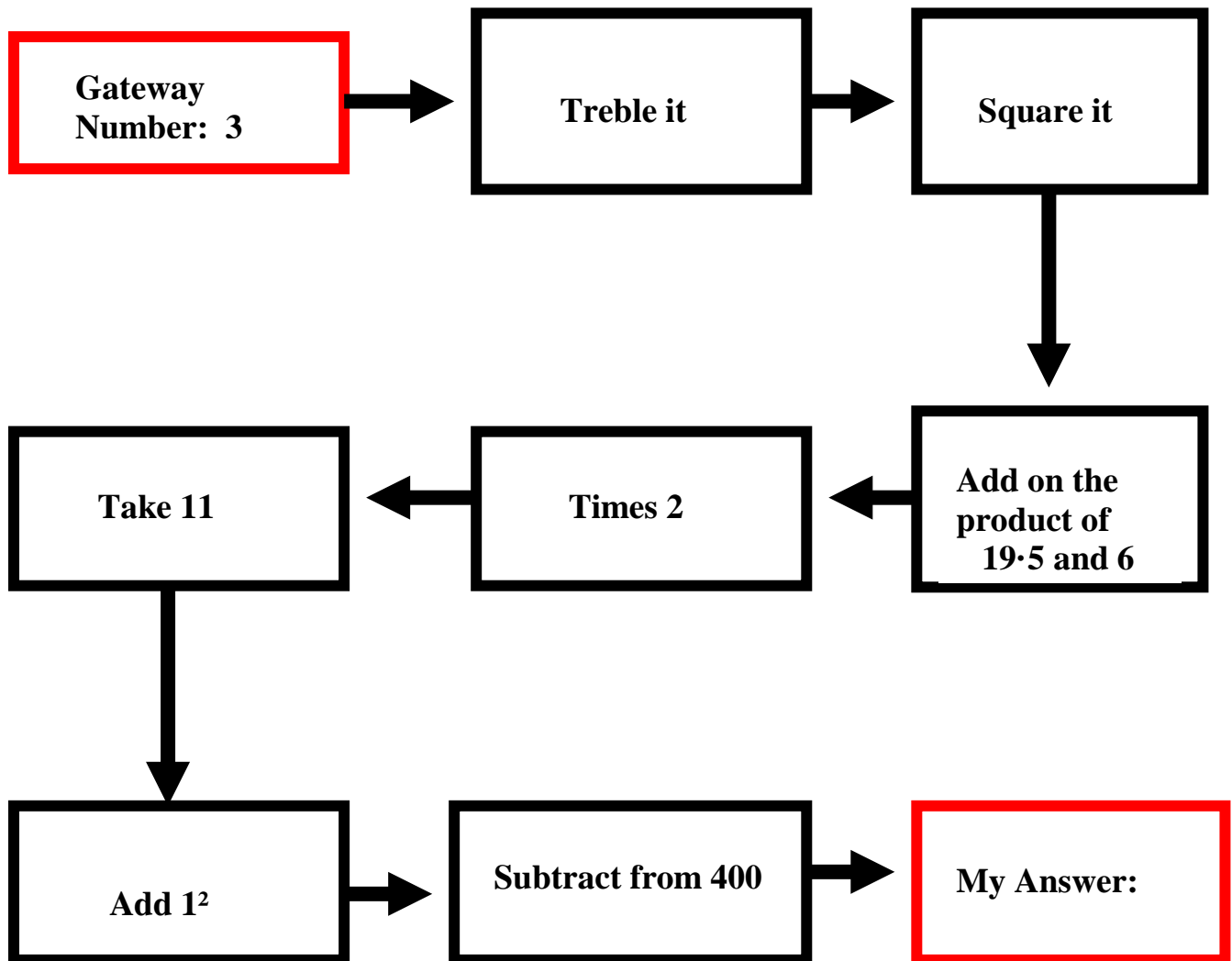
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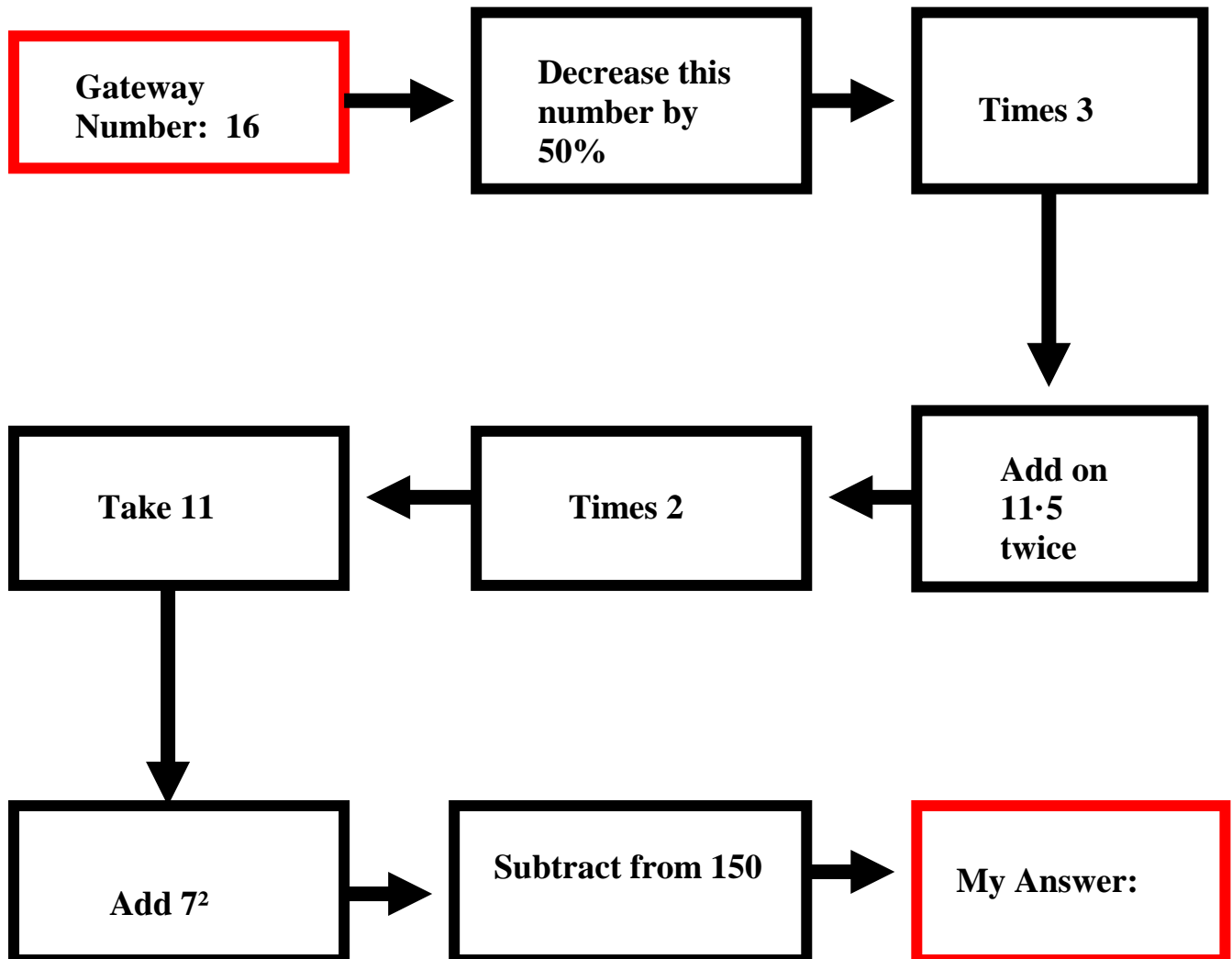
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# Q 20

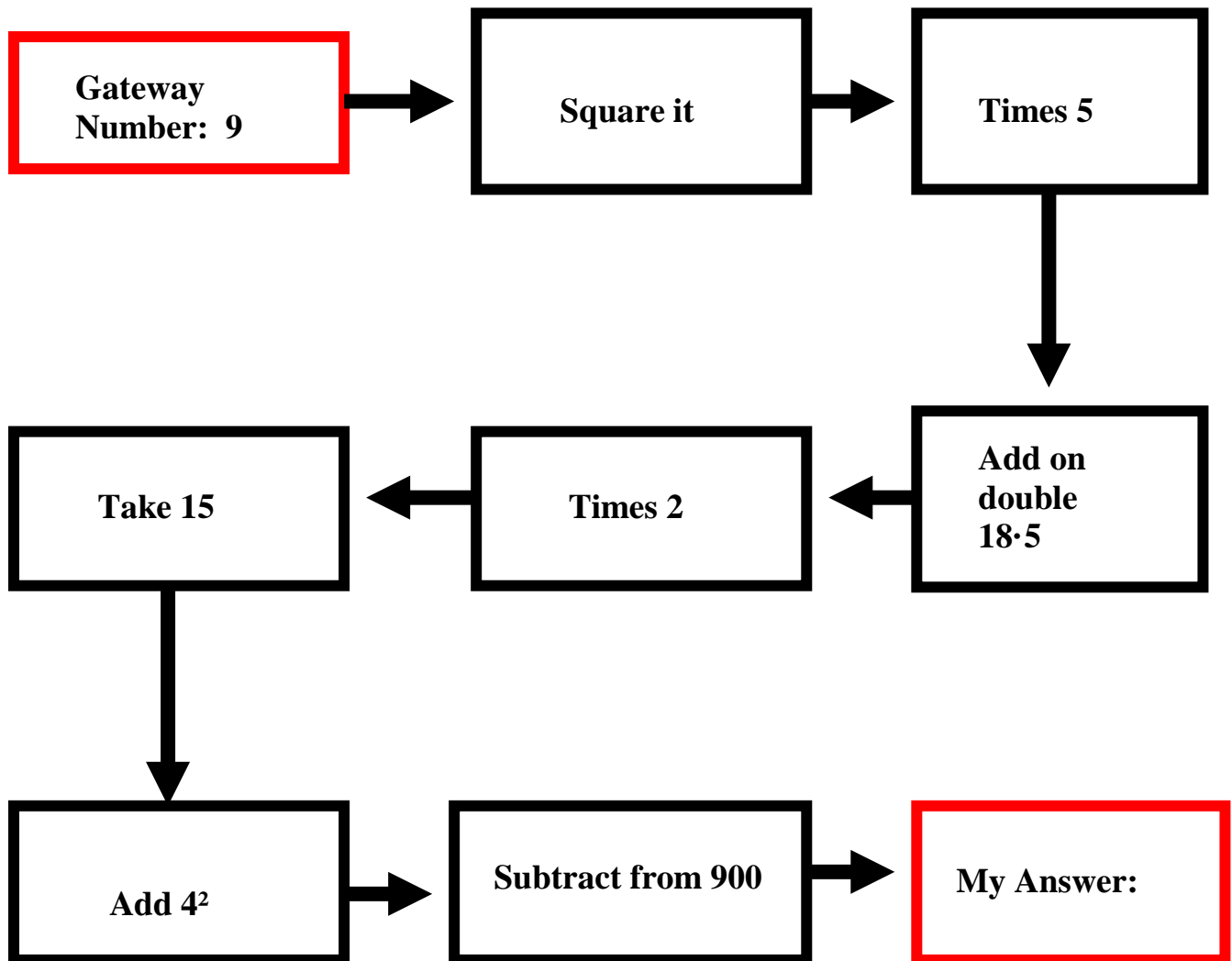


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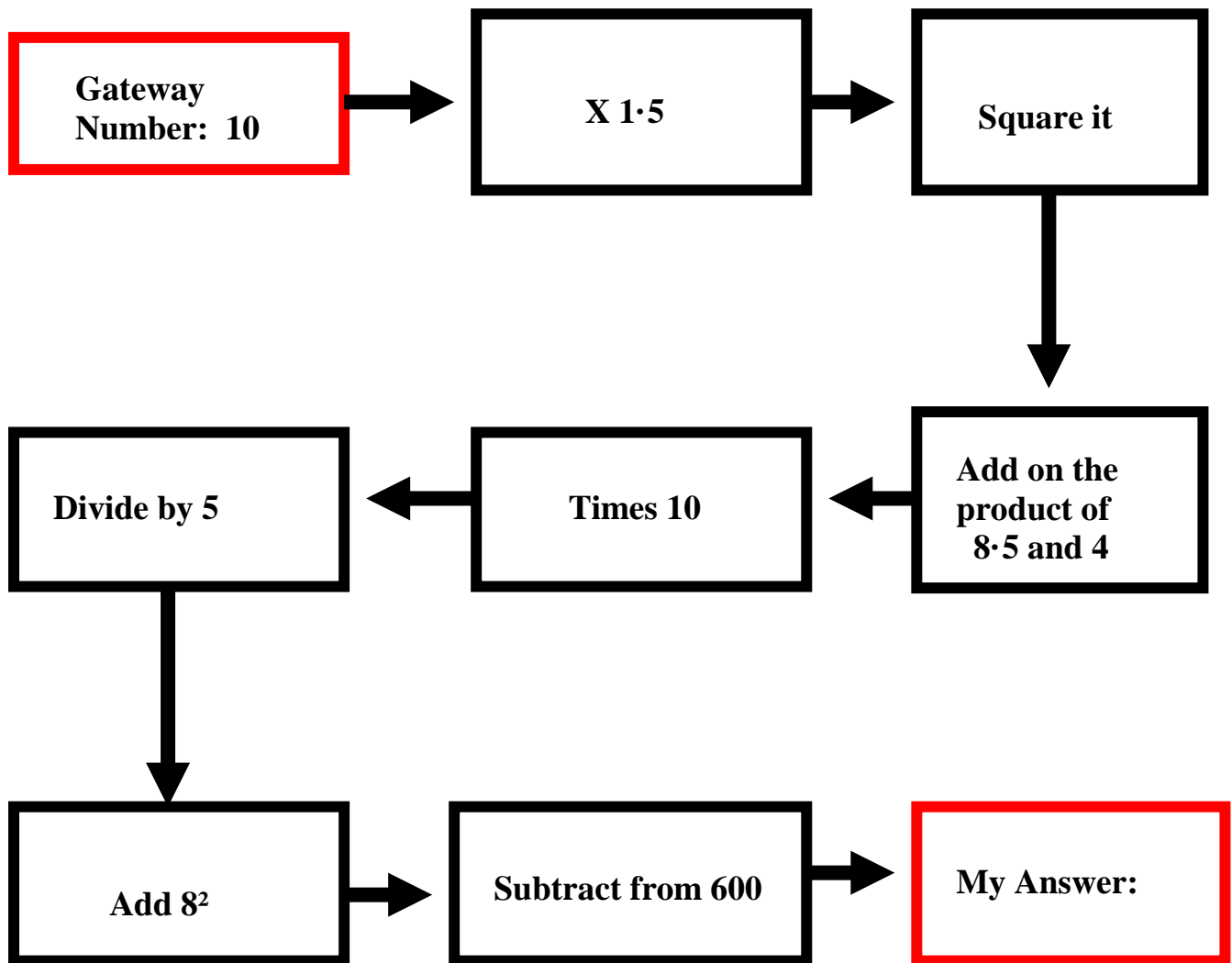




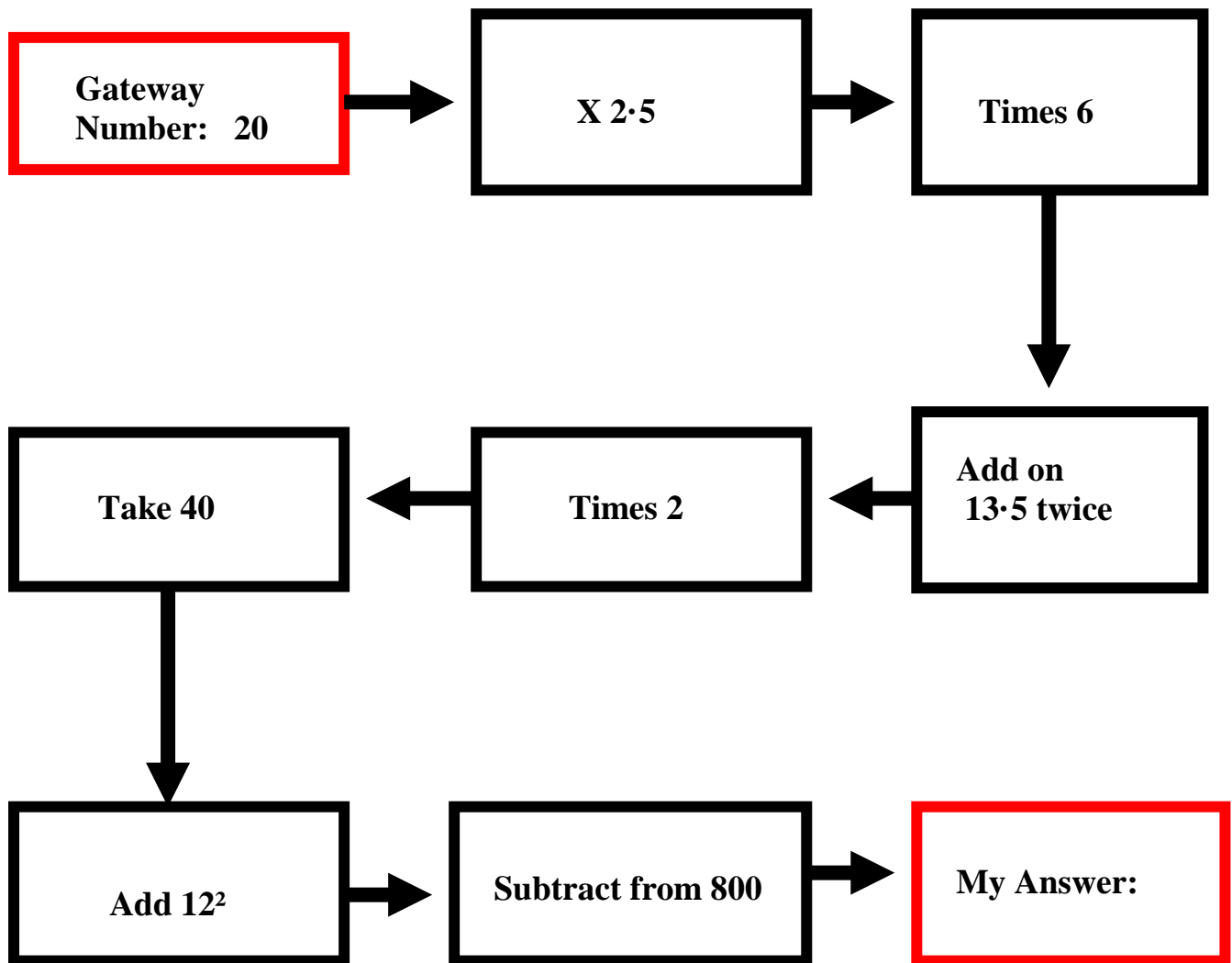
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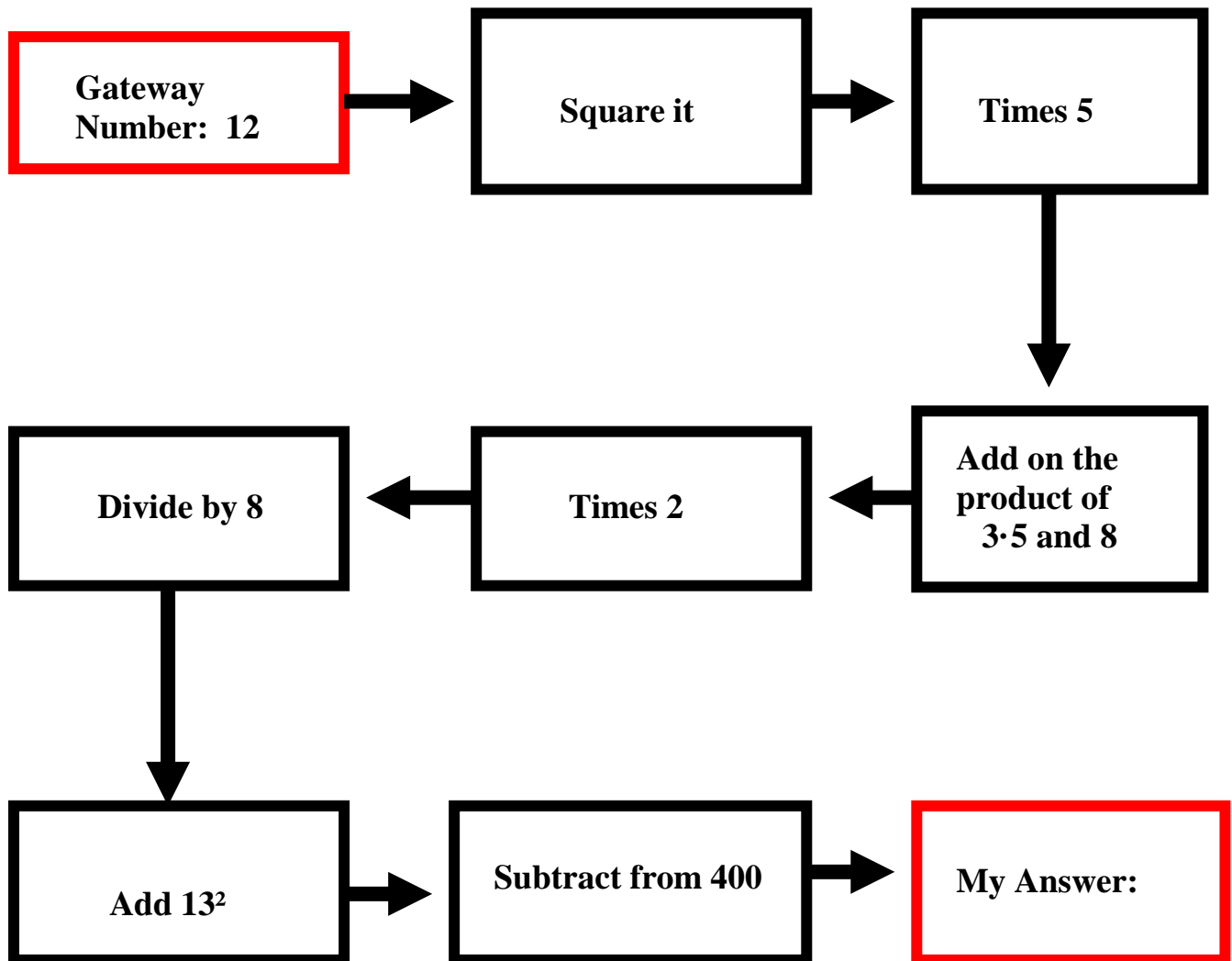
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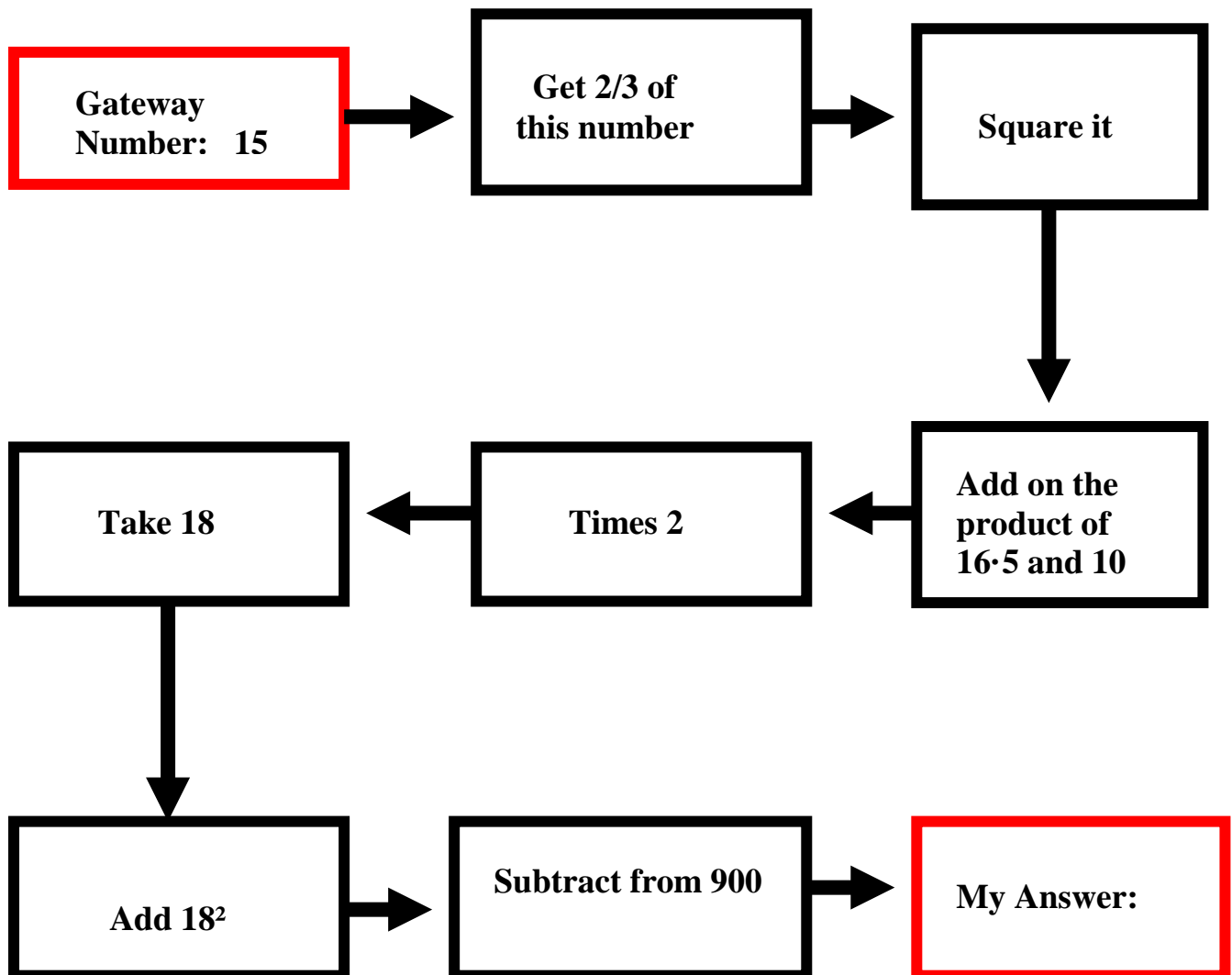
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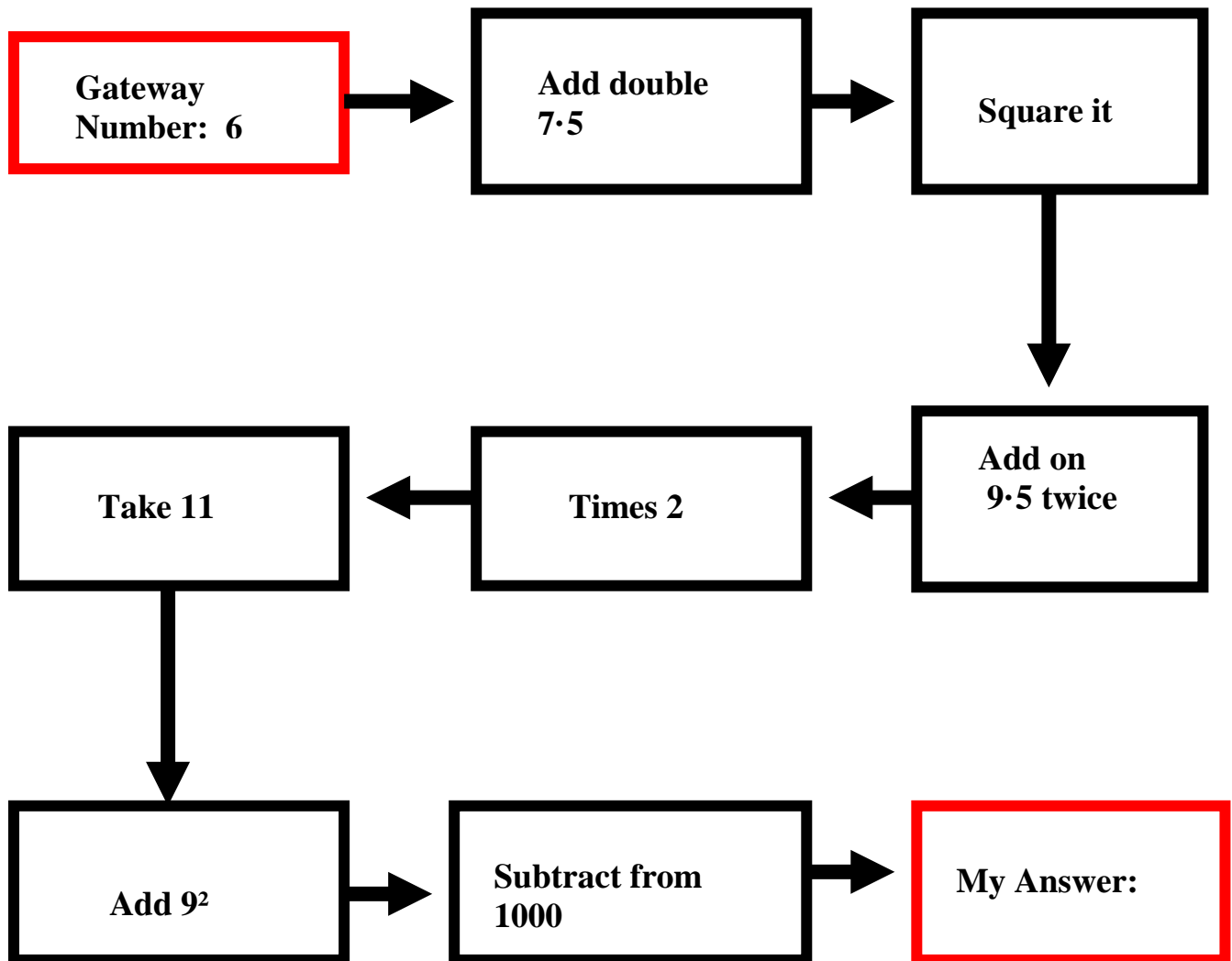
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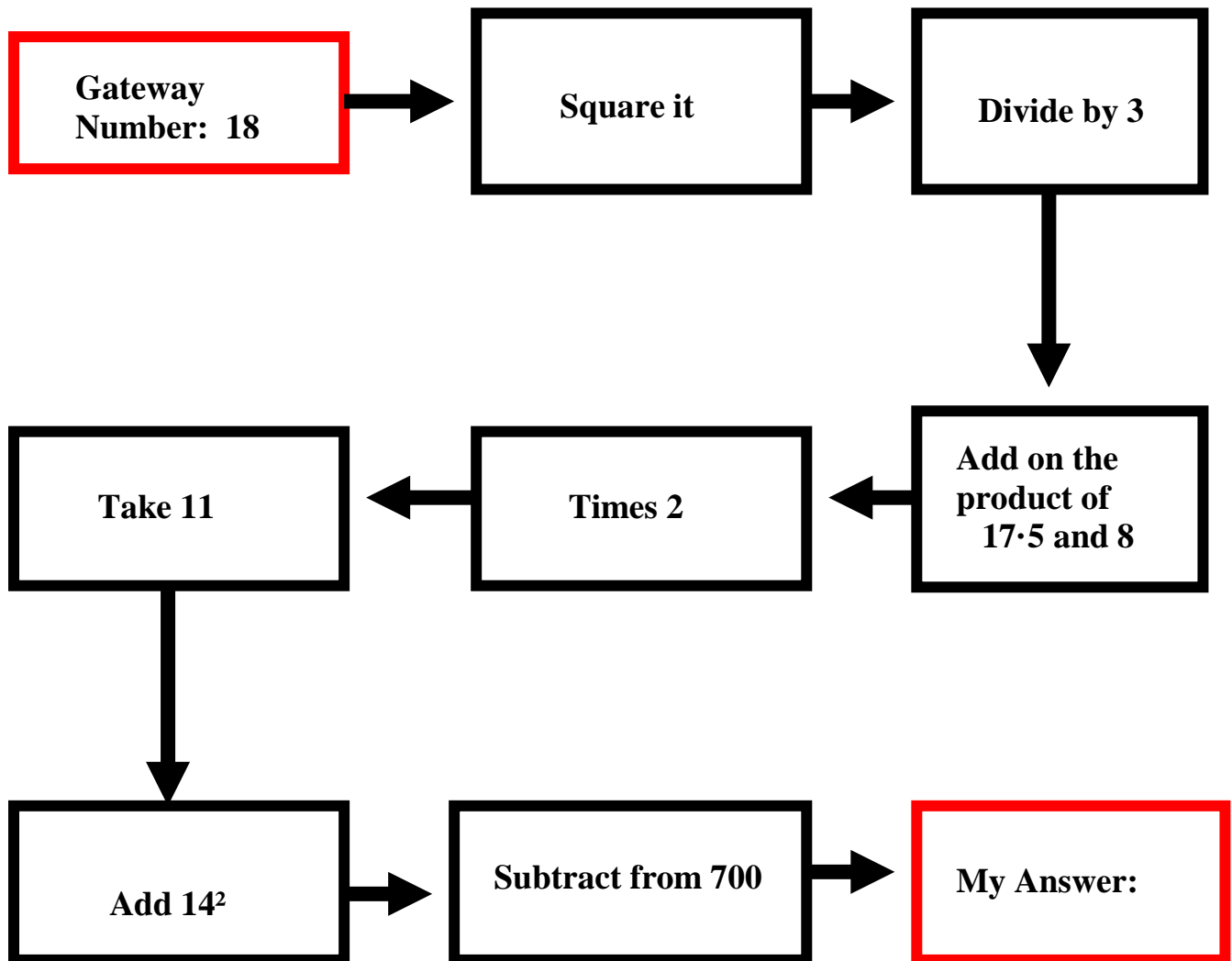
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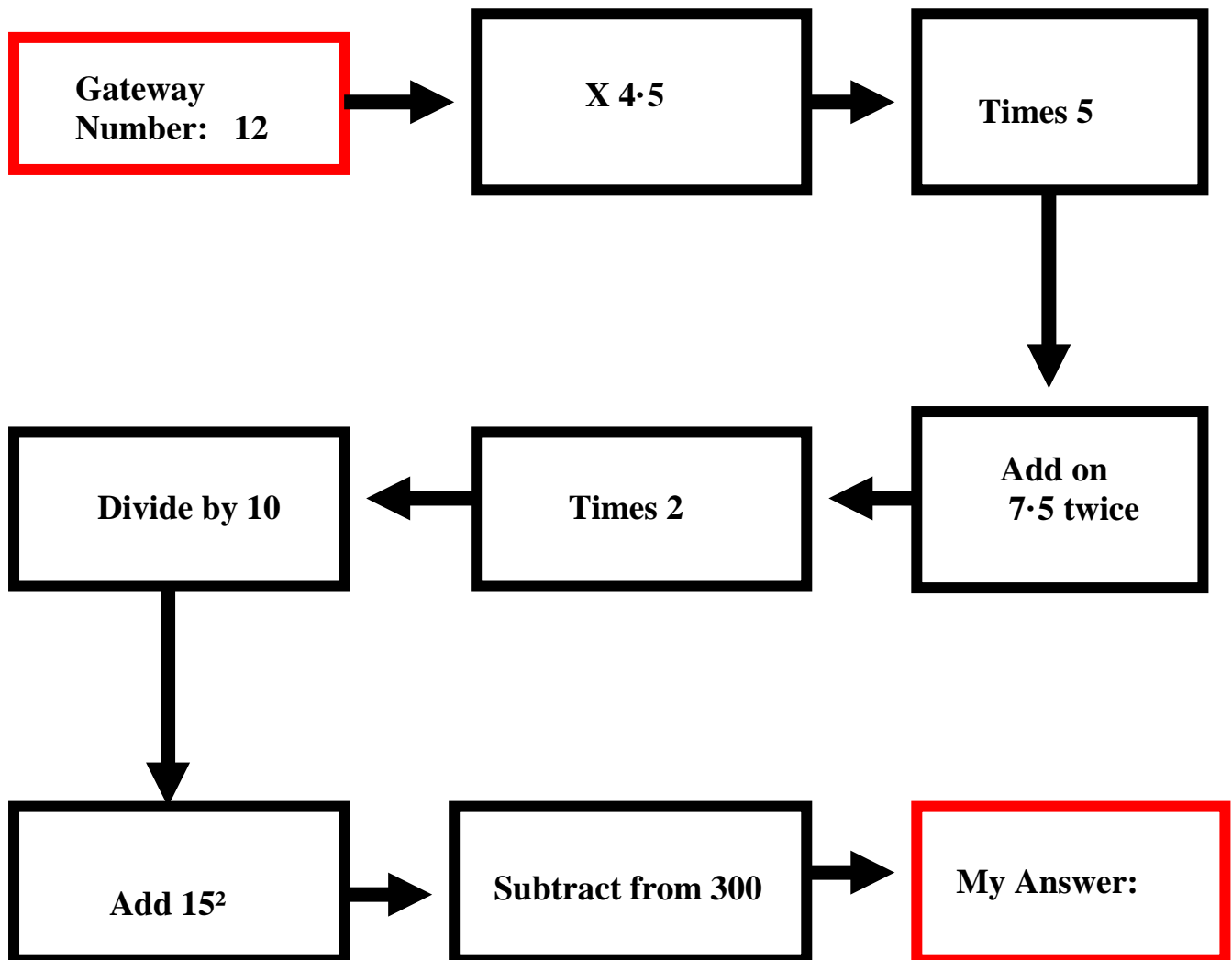
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# Q 28

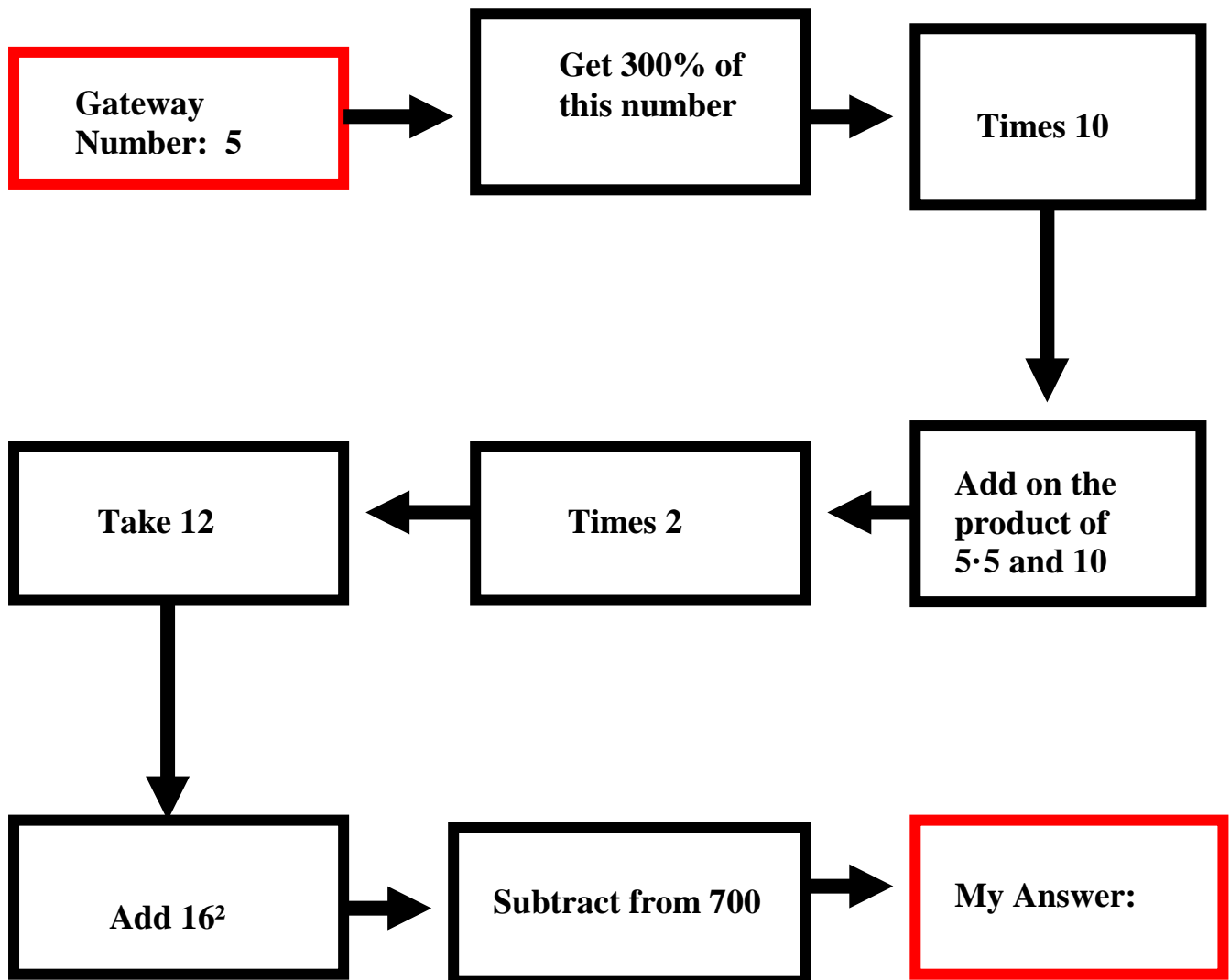


# Q 29





# Q 30



## Solutions to Flow Sums

<b>Question Number</b>	<b>Answer</b>
Q 1	124
Q 2	147
Q 3	309
Q 4	451
Q 5	273
Q 6	461
Q 7	670
Q 8	62
Q 9	92
Q 10	61
Q 11	452
Q 12	25
Q 13	31
Q 14	67
Q 15	22
Q 16	14
Q 17	41
Q 18	28
Q 19	84
Q 20	14
Q 21	18
Q 22	15
Q 23	18
Q 24	42
Q 25	44
Q 26	64
Q 27	10
Q 28	19
Q 29	18
Q 30	46