



Puzzle provided by Noetic Learning Math Contest

Place a number in each of the following empty boxes so that the sum of the numbers in any 3 consecutive boxes is 2013. What is the number that should go in the box with the question mark?

	607				724	?		
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Solution: 682.

To help illustrate the problem, we will label a few boxes as shown below. Since the sum of the numbers in any 3 consecutive boxes is the same, $607 + A + B = A + B + C$. Therefore, the number in box C should be 607.

	607	A	B	C	724	?		
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The sum of the numbers in any 3 consecutive boxes is 2013, therefore we have

$$C + 724 + ? = 2013.$$

C is 607. So we have $607 + 724 + ? = 2013$. Therefore, the box with the question mark should be $2013 - 607 - 724 = 682$.