

Name _____

Date _____

Filling In Patterns Step By Step Lesson

The series of integers and values below follow a mathematical pattern.



Find the values of A, B, and C.

4	8	16	A	64	B	256	512	C	2,048
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Explanation:

Find the difference or operations between successive boxes.

We can identify two sets of successive boxes.

Set 1: 4, 8, 16

Set 2: 256, 512

Let's start with set 1.

Ask yourself, "how you would get that next number?" Since it follows a pattern, whatever operation was applied to the first number, must be applied to the second number too. The possibilities are listed between the box.

4		8		16
	$4 + 4 = 8$		$8 + 8 = 16$	
	$4 \times 2 = 8$		$8 \times 2 = 16$	

The only operation that applies to is multiplying by 2. We can check that this is in fact the pattern by using the second set. $256 \times 2 = 512$. That operation fits that pattern. We will just need to apply this to the entire pattern to complete it.

4	8	16	32	64	128	256	512	1,024	2,048
		$16 \times 2 =$	32	$64 \times 2 =$	128		$512 \times 2 =$	1,024	

