

This book has permission to use the "N&K method of COLORS".

Example: **Question:** If "n" is any positive integer, prove that only one of the numbers, "n-1", "n+1" or "n+3" is divisible by 3.

For speed, while solving something similar, only THINK the words in blue; WRITE only the words in other COLORS.

When n=6

$$(n-1) \text{ is } = 5$$

$$(n+1) \text{ is } = 7$$

$$(n+3) \text{ is } = 9$$

The resulting numbers are 5, 7 & 9.

Only one (9) of which is divisible by 3.

When n=7

$$(n-1) \text{ is } = 6$$

$$(n+1) \text{ is } = 8$$

$$(n+3) \text{ is } = 10$$

The resulting numbers are 6, 8 & 10.

Only one (6) of which is divisible by 3.

When n=8

$$(n-1) \text{ is } = 7$$

$$(n+1) \text{ is } = 9$$

$$(n+3) \text{ is } = 11$$

The resulting numbers are 7, 9 & 11.

Only one (9) of which is divisible by 3.

When n=9

$$(n-1) \text{ is } = 8$$

$$(n+1) \text{ is } = 10$$

$$(n+3) \text{ is } = 12$$

The resulting numbers are 8, 10 & 12.

Only one (12) of which is divisible by 3.

	when	when	when	when
numbers	n=6	n=7	n=8	n=9
1	n	n		
2				
3				
4				
5	n - 1 = 5			
6		n - 1 = 6		
7	n + 1 = 7		n - 1 = 7	
8		n + 1 = 8		n - 1 = 8
9	n + 3 = 9		n + 1 = 9	
10		n + 3 = 10		n + 1 = 10
11			n + 3 = 11	
12				n + 3 = 12
13				
14				
15				

As can be seen from the trend above, the results will be similar when "n" is any other positive integer.

Therefore, when "n" is any positive integer, only one of the three numbers, "n-1", "n+1" or "n+3" is divisible by 3.