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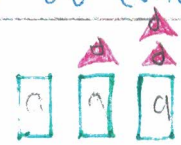
Three neighbours

number of consecutive numbers		sum of the series	comments
3	 a, a+d, a+2d	3×□ +3×▲ 3a+3d=3(a+d)	multiple of 3
4	 a, a+d, a+2d, a+3d	4×□ +6×▲ =4a+6d	6=3×2 not multiple of 4 so 4a+6d is not a multiple of 4
5	 a, a+d, a+2d, a+3d, a+4d	5×□ +10×▲ 5a+10d=5(a+2d)	multiple of 5
6	a, a+d, a+2d, a+3d, a+4d, a+5d	6×□ +15×▲ 6a+15d =3(2a+5d)	multiple of 3
7	a, a+d, ... a+5d, a+6d	7×□ +21×▲ 7a+21d =7(a+3d)	multiple of 7
8	a, ... a+7d, a+(8-1)d	8a+28d =4(2a+7d)	multiple of 4
9	a, ... a+7d, a+(9-1)d	9a+36d =9(a+4d)	multiple of 9

Three Neighbours

continue.

My Conclusions:

① The pattern is: The sum of the consecutive series are multiples of 3, 5, 7, 9, 11, 13 ..... ~~Whether~~ If the number of items in the series are 3, 5, 7, 9, 11, 13 ..... respectively

② Every number in the pattern is odd number.