

$\{1\}$ $\{2, 3, 4\}$ $\{1, 2, 3, 4, 5, 6, 7, 8, 9\}$ $\{1, 2, 3, \dots, n\}$ $\{1, 2, 3, \dots, n\} \Rightarrow \{1, 2, 3, \dots, n\}$

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a, b, c
 $\frac{a+c}{2} \leq b \Rightarrow \frac{1+4}{2} = \frac{5}{2}$

$\{1, 2, 3\}$ $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$ $\{1, 2, 3, \dots, 12\}$ $\{1, 2, 3, \dots, 12\}$

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$\{1, 2, 3, \dots, 12\}$
 $\frac{1+12}{2} = \frac{13}{2}$

$n = 3K$ $n = 3K+1$ $n = 3K+2$
 $a_1 + a_2 + a_3 + a_4 + a_5 + a_6 + a_7 + a_8 + a_9 = 19$
 $1 + 4 + 7 + 10 + 13 + 16 + 19 + 22 + 25 = 128$

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$a_n = an^2 + bn + c$
 $a_1 = 1$ $a_2 = 14$
 $a_1 = -\frac{1}{2} + b - 1 = 1$
 $a_2 = -\frac{4}{2} + 2b + c = 14$

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$a_1 + b = 0 \Rightarrow a = -b$
 $\frac{a+b}{d} = \frac{10a+b}{d} = \frac{10a-10a}{d} = 0$

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