Answer on Question #79718 – Math – Algebra

Question

7+11+13+19+...99+95=?
Please explain with formal structure and give details. Please also give the description of the
shortcut ((7+99)/2)*24.

Solution

$7 + 11 + 13 + .. + 95 + 99.$

We have pairs of numbers that give a total of 106: $7 + 99$ and $11 + 95$.

I think there is a mistake here and there should be 15 instead of 13;

so we have 12 pairs (we have an arithmetic progression with the comon difference of 4,

hence $\frac{99-7}{4} + 1 = 24$, in other words, 12 pairs).

*So, let us have 12 pairs of numbers that together give 106, 106+106+106,…, that is,12 times,
which gives 106*12 or $\frac{(7+99)}{2} \cdot 24$ and it is equal to 1272.*

Answer: *1272.*