An algorithm example in LaTeX and Eq

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1 Formulation of a problem

If we list all the natural numbers below 10 that are multiples of 3 or 5, we get 3, 5, 6 and 9. The sum of these multiples is 23.

Find the sum of all the multiples of 3 or 5 below 1000.

2 Algorithm

$main(\ ): \ \rightarrow \mathbb{Z}$

 return $(\gamma(3, 999) + \gamma(5, 999) - \gamma(15, 999))$

$\gamma(n, m): \mathbb{Z}, \mathbb{Z} \rightarrow \mathbb{Z}$

 $f \leftarrow \left\lfloor \dfrac{m}{n} \right\rfloor$

 return $(n + f \cdot \frac{f+1}{2})$

3 Answer

The answer is **233168**