Calculus II Decimal notation to rational number

Todor Milev

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Write the number
$$2.3\overline{17}=2.3171717\dots$$
 as a quotient of integers.
$$2.3171717\dots=2.3+\frac{17}{10^3}+\frac{17}{10^5}+\frac{17}{10^7}+\cdots$$

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