

TO THE EDITOR OF THE YOUTH'S INSTRUCTOR,

SIR—

If the following Answers to the Arithmetical Puzzles and Questions are correct, you will oblige me by inserting them.
Your's, &c.

* ARITHMETICUS.

ANSWERS TO THE PUZZLES.

1. MILLIO.

2. 99.9-9.

3. From $\left\{ \begin{array}{l} \text{SIX} \\ \text{IX} \\ \text{XL} \end{array} \right\}$ take $\left\{ \begin{array}{l} \text{IX} \\ \text{X} \\ \text{L} \end{array} \right\}$ then $\left\{ \begin{array}{l} \text{S} \\ \text{I} \\ \text{X} \end{array} \right\}$ will remain.

ANSWERS TO THE QUESTIONS.

1. $\frac{1}{2}$ of 2d = $\frac{2}{3}$ of 1d = 2-9 of 3d.

2. As 7:5-2::11:55-14 of 1; which = 55-126 of 9.

3. Suppose the expense and the profit to be the same, and each = 2; then double the expense = 4, and half the profit = 1, and therefore the difference is 3, and the rate of the former to the latter is as 4 to 1.

I now propose the following Puzzle and Question for the consideration of your readers, and would be glad to see them answered in your next number.

Puzzle.—In an Arabian manuscript was found this remarkable decision of a dispute. Two Arabians sat down to dinner; one had five loaves and the other three. A stranger passing by, desired permission to eat with them; to which they agreed. The stranger dined, laid down 8 pieces of money and departed. The proprietor of the 5 loaves took up 5 pieces, and left three for the other, who objected, and insisted for one half. The cause came before Ali, the Magistrate, who gave the following judgment: "Let the owner of the 5 loaves have 7 pieces of money; and the owner of the 3 loaves 1." Quere, the justice of this sentence?

Question.—An Indian Gardener being desirous of presenting a basket of oranges to his Navah, had seven gates to pass before he could reach the audience chamber; at the first of which he was obliged to give half the number he had to the porter; at the second half what remained; and so on; when at length coming into the presence of the Prince, he found he had only one orange left. How many had he at first?