

ever, in a moderate proportion, there can be little doubt but that it is nutritious, for all animals supported in their earlier state by milk, are nourished by on food containing a great proportion of sugar; and Dr. Cullen is of opinion that all food is nutritious in proportion to its saccharine quality. Still there are well authenticated cases in which an excess of sugar has been found to have done much harm.

To the Editor of the Youth's Instructor,

SIR—If the following Answers to the Arithmetical Puzzle and Questions are correct, you will oblige me by inserting them.—Your's respectfully,

* J. H.

ANSWER TO THE PUZZLE.

Suppose the value of each of the loaves to be equal, and each of the pieces of money to be equal—and suppose each man to eat $\frac{1}{3}$ of the loaves, then the man that had five loaves must have given $2\frac{1}{3}$ or 7-3 loaves to the stranger, and he that had three loaves only $\frac{1}{3}$ of a loaf—therefore $7-3 + \frac{1}{3} = 8-3$; now by rejecting the denominator the proportion will be as follows:—

<i>thirds.</i>		<i>pieces.</i>		<i>thirds.</i>		<i>pieces.</i>
As 8	:	8	::	7	:	7
As 8	:	8	::	1	:	1

ANSWER TO THE QUESTION.

Suppositions	140	$\div 2 = 70$	120	$\div 2 = 60$
	70	$\div 2 = 35$	60	$\div 2 = 30$
	35	$\div 2 = 17\frac{1}{2}$	30	$\div 2 = 15$
	$17\frac{1}{2}$	$\div 2 = 8\frac{3}{4}$	15	$\div 2 = 7\frac{1}{2}$
	$8\frac{3}{4}$	$\div 2 = 4\frac{3}{8}$	$7\frac{1}{2}$	$\div 2 = 3\frac{3}{4}$
	$4\frac{3}{8}$	$\div 2 = 2\frac{3}{16}$	$3\frac{3}{4}$	$\div 2 = 1\frac{7}{8}$
	$2\frac{3}{16}$	$\div 2 = 1\frac{3}{32}$	result	$1\frac{7}{8} \div 2 = 15-16$
	$1\frac{3}{32}$	$15-16 : 140-120 :: 1\frac{3}{32}-1$		

$5-32 : 20 : 3-32 : 12$ which subtracted

from 140 leaves 128 the answer.

I now propose the following Puzzle for the consideration of your readers, and would be glad to see it answered—

Suppose there are more persons in the world than any of them has hairs upon his head, it then follows as a necessary consequence, that some two of them at least must exactly have the same number of hairs on their heads to a hair.—Required the proof.