this simplified problem, we obtain the answer $\frac{1}{3}$. Mr. Faulkner is making the same error that d'Alembert made two hundred years ago; he is assuming that since there are three possibilities—namely two heads, two tails, and one head and one tail—it must be true that they are equally likely. Of course, a model is true only as it fits physical reality, but anyone who has ever experimented with flipping two coins will concur that $\frac{1}{2}$ rather than $\frac{1}{3}$ fits reality better. I hope that this explanation will clear up the "paradox".

Department of Mathematics, ERIC S. LANGFORD
Education Building,
University of Maine,
Orono,
Maine 04473,
U.S.A.

[Comments were also received from Professor H. J. Godwin and Mr. B. L. Meek.]

CORRESPONDENCE

To the Editor, *The Mathematical Gazette*

SIR,

With reference to the article "Maths for Tomorrow's Children" by Michael Holt in the May 1970 issue of the Gazette:—

Whilst Mr. Holt recognizes and states that the solution to his opening problem is not unique, and however much one appreciates and sympathises with the innovative work and methods being used by Prof. Dienes, one cannot help but feel that this was an unfortunate example to use. Apart from the fact that x must be equal to or greater than 4 to be physically meaningful, the problem is not one of solving an equation at all, but of solving an equality, viz.

$$Y(x - 1 + Z) = x^2 - x - 6,$$

where Y equals the size of a depleted crew and Z equals the number of enemy tanks picked up.

For example, one solution is $x = 10$, $Z = 5$ and $Y = 6$. In this case, the final number of men is 84 and one requires to factorize 84 into 6 times 14—not to "factorize"

$$x^2 - x - 6 = 84 \equiv (x - 10)(x + 9) = 0,$$

and certainly not to factorize $x^2 - x - 6 = 0$!!

Surely the main point here is that, because the "method" of solution is a particular and peculiar one, there is a great danger that such children will lose sight of the general case and become even more confused about the fundamental difference between an equation and an identity or equality.

Yours faithfully,

51, Palewell Park, F. G. WILLIAMS
East Sheen,
*London, S.W.*14.

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