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31 R 12 Buses!

Adapted from a NAEP test item in the mid-1980s, this word problem is quite old and infamous: Students and teachers will go by bus for spring sightseeing. There is a total of 1128 students and teachers. Each bus holds 36 people. How many buses are needed? In the mid-1990s it was given to Chinese fifth/sixth grade students.

Most of the students did the computation correctly (as did U.S. students), but only 24% produced the correct answer of 32 buses (as did about the same percentage of U.S. students).

The incorrect answers given: 31 buses, 31.2 buses, $31 \frac{1}{3}$ buses, or even 31 R 12 buses.

Why do these errors occur? Is it because we put too much focus on computation, and not enough on understanding problem situations and reflecting on the reasonableness of answers?

I would guess that if the same situation was presented as follows: A group of 1128 students and teachers will go by bus for sightseeing. As each bus holds 36 people, the Principal ordered 31 R 12 buses. Why was he fired? (or you could insert any of the other wrong answers....

I expect these same students (U.S. and Chinese) would get the problem correct. So, is this just one more symptom of the game we play called "teaching mathematics"?

A former colleague would not accept 1.25 as the "answer" to $\frac{1}{2} + \frac{3}{4}$, claiming it had to be $1 \frac{1}{4}$ because the original problem was in a fraction context.

Now, I wonder, how this teacher would write the answer to $\frac{1}{2} + 0.75$?