The Weekly Rigor

No. 353

"A mathematician is a machine for turning coffee into theorems."

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50 Word Problems Involving Rational Equations

(Part 3)

9. A positive integer is 2 less than another. If the sum of the reciprocal of the smaller and twice the reciprocal of the larger is $\frac{5}{12}$, then find the two integers.

10. A positive integer is 4 less than another. If the reciprocal of the smaller integer is subtracted from twice the reciprocal of the larger, then the result is $\frac{1}{30}$. Find the two integers. (two sets: {6, 10} and {20, 24})

Uniform Motion

11. Suppose that Wendy rides her bicycle 30 miles in the same time that it takes Kim to ride her bicycle 20 miles. If Wendy rides 5 miles per hour faster than Kim, find the rate of each.

12. Kent drives 270 miles in the same time that it takes Dave to drive 250 miles. If Kent averages 4 miles per hour faster than Dave, find their rates.

"Only he who never plays, never loses."

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