

The Weekly Rigor

No. 330

“A mathematician is a machine for turning coffee into theorems.”

October 17, 2020

30 Problems in Reducing Complex Fractions to Simple Fractions (Part 1)

PROBLEMS

Reduce the following complex fractions to simple fractions.

$$1. \frac{\frac{a-b}{2-a}}{1+\frac{1}{a}}.$$

$$2. \frac{1+\frac{1}{c}}{a+\frac{1}{a}}.$$

$$3. \frac{\frac{c}{c-1}-1}{1-\frac{c}{c+1}}.$$

$$4. \frac{\frac{a+b}{x+y}}{\frac{a^2-b^2}{x^2-y^2}}.$$

$$5. 1 - \frac{1}{1 + \frac{1}{a}}.$$

$$6. \frac{1}{1 - \frac{1}{1 + \frac{1}{n}}}.$$

$$7. \frac{\frac{4}{x}}{\frac{2}{xy}}.$$

$$8. \frac{\frac{9}{8xy^2}}{\frac{5}{4x^2}}.$$

“Only he who never plays, never loses.”