The Weekly Rigor

No. 361

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

May 22, 2021

50 Word Problems Involving Rational Equations

(Part 11)

Mixture

41. Sam has 1.5 gallons of 90% juice and a large amount of 60% juice. How many gallons of the 60% juice would he have to add to the 90% juice to make a solution that is 80% juice?

42. How many milliliters of alcohol must be added to 200 milliliters of a 25% Iodine solution in order to make a 10% Iodine solution?

43. Bob wants to mix 12 liters of a 4% potassium chloride (KCI) solution with some 70% KCI solution to create a 60% KCI solution. How much of the 70% solution does Bob need to use?

44. Solution A is 50% hydrochloric acid, while solution B is 75% hydrochloric acid. How many pints of each solution should be used to make 100 pints of a solution which is 60% hydrochloric acid?

"Only he who never plays, never loses."

Written and published every Saturday by Richard Shedenhelm