

Elementary Algebra Skill

Setting Up and Solving Mixture Problems I

1. A coin jar has 120 dimes and quarters. The total value of the coins is \$18. How many coins of each type are in the jar?
2. Fred inherited \$350,000 from his rich uncle. He invested part of it at a 5% CD and the rest at 8% bonds. How much did he invest in each if at the end of one year his money earned \$21,400 in interest?
3. A chemist needs 40 liters of a 25% acid solution but the only solutions available in the lab are a 10% acid solution and a 40% acid solution. How many liters of each should be mixed in order to produce the desired solution?
4. How many pounds of Kona Coffee that costs \$3.50 a pound should be mixed with Costco Coffee that costs \$1.20 a pound to produce 10 pounds of coffee that costs \$2.58 a pound?

Answers to Setting Up and Solving Mixture Problems I

1. 80 dimes and 40 quarters
2. \$220,000 at 5% and \$130,000 at 8%
3. 20 liters of each
4. 6 lbs of Kona and 4 lbs of Costco