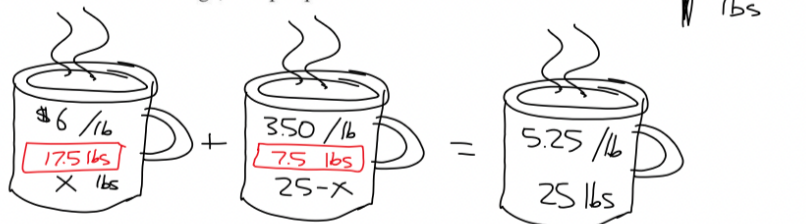


2-3 D1 Notes

Monday, October 9, 2023 8:34 AM

Solve. For each, define a variable, translate into an equation, then find the answer to the question. A chart or a picture may be helpful.

2. A coffee merchant combines coffee costing \$6 per pound with coffee costing \$3.50 per pound. How many pounds of each should be used to make 25 lb of a blend costing \$5.25 per pound?



Let x = amt of Copper Cup
 $25 - x$ = amt of Breakwater

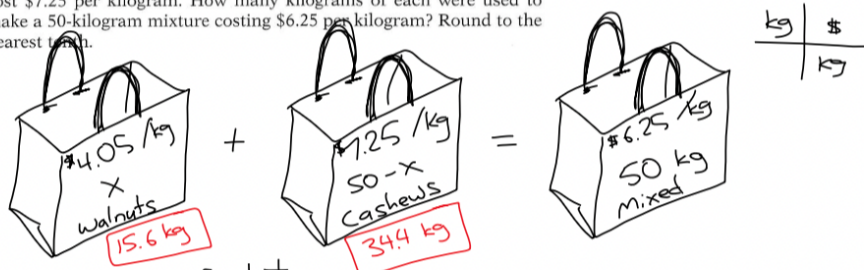
$$6x + 3.5(25 - x) = 25(5.25)$$

$$\underline{6x + 87.5 - 3.5x = 131.25}$$

$$\underline{2.5x = 43.75}$$

$$x = 17.5$$

12. Walnuts that cost \$4.05 per kilogram were mixed with cashews that cost \$7.25 per kilogram. How many kilograms of each were used to make a 50-kilogram mixture costing \$6.25 per kilogram? Round to the nearest tenth.



Let x = kg of walnuts

$$4.05x + 7.25(50 - x) = 50(6.25)$$

$$\underline{4.05x + 362.5 - 7.25x = 312.50}$$

$$\underline{-3.2x = -50}$$

$$x = 15.625$$