

Name: _____

Date: _____

Algebra I

Directions: Solve each word problem. Include a let statement, chart, and work to solve. Write your answer as a sentence.

1. Kelly wants to create a candy mix of chocolate and nuts. Chocolates cost \$2.00 per pound and nuts are \$1.50 per pound. If she wants to sell 15 pounds of the mix at \$1.80 per pound, how much of each does she need?

2. Lisa mixes together watermelon and strawberries to create a fruit salad to sell for \$8 per pound. Strawberries cost \$12 per per pound and watermelon costs \$6 per pound. If she wants to sell a total of 10 pounds, how much of each needs to go into the salad?

3. If Tina wants to mix 4 pounds of caramels, sold at 65 cents per pound, and some amount of chocolates at 90 cents per pound, how many pounds of chocolates would she need, to sell the mix at 75 cents per pound?

4. If Jill wants to combine 30 pounds of raisins, sold at \$1.20 per pound, and some amount of granola sold at \$2 per pound, to crate a trail mix that sells at \$1.80 per pound, how many pounds of granola will she need?

5. If a 30% salt solution is mixed with 12 ounces of a 50% salt solution, how much of the first solution is needed to create a mix that is 35% salt?

6. How much water must be added to four gallons of a 50% pure iodine solution, in order to create a 40% pure iodine mix?

7. How much lemonade must be added to a gallon of 80% lemonade solution, in order to create a 95% lemonade mix?

8. How much water must be mixed with 3 ounces of pure saline, in order to create a solution that is 60% saline.