Essential Question: How can we set up an equation to solve problems about mixtures?

Do Now:

A) How much does it cost you if you purchase 3 pounds of coffee costing $5.50 per lb. and 7 pounds of coffee costing $6.00 per lb.?

B) If the two types of coffees are mixed, how much does the mixture weigh?

C) What is the price per pound of the mixture?

Let's use the key concept from yesterday to help us solve mixture problems.

1) Grade A seeds cost $8/lb. and Grade B seeds cost $5/lb. How many pounds of each type of seed are needed to produce a 30 pound mixture with a total value of $225?

	cost per pound (how much is 1 lb)	quantity (how many pounds)	total value (how much money)
Grade A			
Grade B			

2) A mixture weighing 10 pounds consists of coffee that sells for $6.25 per lb. and coffee that sells for $4.50 per lb. If the mixture sells for $5.20 per lb., how many pounds of each coffee was in the mixture?

3) Mark wants to make trail mix made up of almonds, peanuts and dried cranberries. He wants to mix one part almonds, two parts peanuts, and three parts cranberries. Almonds cost $5.00 per pound, peanuts cost $3.00 per pound and dried cranberries cost $7.00 per pound. Mark has $16.00 to spend. Determine how many pounds of trail mix he can purchase?

The TAKEAWAY

Key Idea in setting up money/mixture word problems:

_____ x _____ = **total value ($)**

Money/Mixture Problems

1) Zahra put $4.50 in dimes, nickels and quarters in her piggy bank. She had 5 more dimes than nickels and 16 less quarters than nickels. How many coins of each type are there?

2) Ken has 25 coins in nickels and dimes only. The coins total $1.65. How many of each coin does he have?

3) Colleen bought 40 stamps. Some of them were 5¢ and some were 20¢. If the total value of the stamps is $5.75, how many stamps of each kind did she buy?

4) The admission tickets to a concert were sold to adults for $8 each and to children for $5 each. The total number of adult tickets sold was 50 less than twice the number of children's tickets sold. If the total ticket sales amounted to $5,900, how many tickets of each type were sold?

5) How many pounds of candy worth $12 per pound should be mixed with candy costing $19 per pound to produce a 70 pound mixture that sells for $15 per pound?