

Valerie Nelson

My third implementation of technology is the utilization of the Logitech wireless presenter for Powerpoint presentations. It allows the user to stand at any location in the room and control a powerpoint slideshow without the necessity of close proximity to the computer or the need for access to its keyboard.

Mixture Problems

Mixture Problems

Mixture problems are problems in which two or more parts are combined into a whole.

In mixture problems, the units are usually the number of gallons or pounds and the value is the cost, value, or concentration per unit.

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Ingredients	Number of Units	Price per Unit (\$)	Total Price

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Ingredients/Mix	Number of Units	Price per Unit (\$)	Total Price
Blackberries			
Black Tea			
Blended Tea			

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Ingredients/Mix	Number of Units	Price per Unit (\$)	Total Price
Blackberries		\$10.50/pound	
Black Tea		\$35.00/pound	
Blended Tea		\$25.00/pound	

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Ingredients/Mix	Number of Units	Price per Unit (\$)	Total Price
Blackberries	5 pounds	\$10.50/pound	
Black Tea	X pounds	\$35.00/pound	
Blended Tea	$(x + 5)$ pounds	\$25.00/pound	

Mixture Problems

Example: Retail

A tea company sells blended tea for \$25 per pound. To make blackberry tea, dried blackberries that cost \$10.50 per pound are blended with black tea that costs \$35 per pound. How many pounds of black tea should be added to 5 pounds of dried blackberries to make blackberry tea?

Ingredients/Mix	Number of Units	Price per Unit (\$)	Total Price
Blackberries	5 pounds	\$10.50/pound	$5(10.50)$
Black Tea	X pounds	\$35.00/pound	$35x$
Blended Tea	$(x + 5)$ pounds	\$25.00/pound	$25(x + 5)$

Mixture Problem Calculations

Ingredients/Mix	Number of Units	Price per Unit (\$)	Total Price
Blackberries	5 pounds	\$10.50/pound	$5(10.50)$
Black Tea	x pounds	\$35.00/pound	$35x$
Blended Tea	$(x + 5)$ pounds	\$25.00/pound	$25(x + 5)$

Set up the equation: $5(10.50) + 35x = 25(x + 5)$

Distribute: $52.50 + 35x = 25x + 125$

Subtract: $52.50 - 52.50 + 35x = 25x + 125 - 52.50$

Simplify: $35x = 25x + 72.50$

Subtract: $35x - 25x = 25x - 25x + 72.50$

Simplify: $10x = 72.50$

Divide: $10x/10 = 72.50/10$

Simplify: $x = 7.25$ pounds of Black Tea

Mixture Problems

Solve: Coffee

Premium coffee beans cost \$9.50 per pound and Supreme coffee beans cost \$11.75 per pound. How many pounds of Premium coffee beans should be mixed with 2 pounds of Supreme coffee beans to make a blend of coffee beans that cost \$10.00 per pound?

Ingredients	Number of Units	Price per Unit (\$)	Total Price

Mixture Problems

For more information go to the site below.

[http://www.purplemath.com/modules/mixture
.htm](http://www.purplemath.com/modules/mixture.htm)