EXAMPLE 2 Using Order of Operations

There are 1950 calories in a cup of salad oil, 55 calories in an egg yolk, and 16 calories in a teaspoon of sugar. The other ingredients in the mayonnaise recipe are essentially calorie free. How many calories are in the mayonnaise recipe?

Homemade Mayonnaise	
* 2 egg yolks	* ³ /4 tsp salt
* 1/2 tsp powdered mustard	*1/4 tsp sugar
* Pinch cayenne pepper	* $41/_2$ tsp white vinegar
* 1 1/2 cups salad oil	* 4 tsp hot water
Preparation:	
Beat yolks, salt, mustard, sugar, pepp	er, and 1 teaspoon vinegar until thick
and pale yellow. Add about 1/4 cup o	oil, drop by drop, beating vigorously. Beat
in 1 teaspoon each vinegar and hot w	ater. Add another 1/4 cup oil, a few
drops at a time, beating vigorously. E	Beat in another teaspoon each vinegar
and water. Add ½ cup oil in a fine st	teady stream, beating constantly. Mix in
remaining vinegar and water. Slowly	beat in remaining oil. Cover and

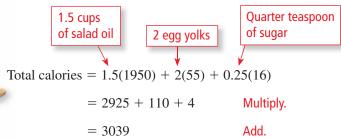


Some historians say that mayonnaise originated in There are 3

Bayonne, France, and was originally called bayonnaise.

SOLUTION

refrigerate until needed. Do not keep longer than 1 week.

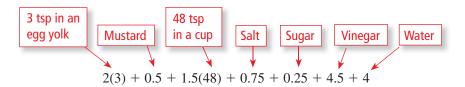


There are 3039 calories in the recipe.





The total number of teaspoons in the mayonnaise recipe is given by the expression below.



- **a.** How many teaspoons are in the recipe?
- **b.** How many calories are in a teaspoon of mayonnaise?