

Function Composition using Crackers and Cheese – Class Handout

Before you begin, make sure that you have a paper plate and a snack pack of cheese and crackers. Draw an “ x ” in the center of your paper plate. We define the following two functions.

$C(x)$ is the function of placing a cracker on x .

$S(x)$ is the function of spreading one teaspoon of cheese on x .

1. Create $C(x)$. Describe what is on your plate.
2. Create $C(C(x))$. Describe what is on your plate. How does this differ from the previous problems?
3. Create $S(C(x))$. Describe what is on your plate.
4. Create $S(C(C(x)))$. Describe what is on your plate.
5. Make a cheese sandwich and place it on the “ x ” on your plate. What function symbols describe the sandwich you just created?
6. Would you want to create $C(S(x))$? Why or why not?
7. What is the difference between $C(S(x))$ and $S(C(x))$? Does order matter?