

Describing Functions

Learning Goals

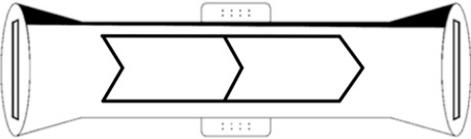
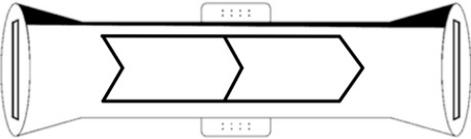
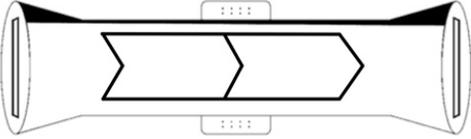
- Describe a function rule using words.
- Compare the verbal description of a function to its algebraic form.
- Write function rules in algebraic form.

1. EXPLORE - Open the Function Builder simulation and explore. What do you notice?

2. BUILD - Go to the Numbers screen and build 3 multistep functions. Describe your function.

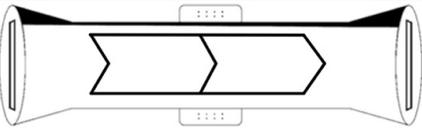
Use a variety of operations



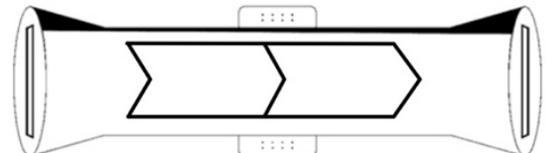
Function	Describe how the function rule changes the INPUTS.
	
	
	

3. SHARE - Compare your functions with a partner. Record one of your partner's functions below and describe how the function rule changes the INPUTS.

Choose a function that is different from the ones that you created

Function	Describe how the function rule changes the INPUTS.
	

*Challenge - Can you build a function that always has the same output?

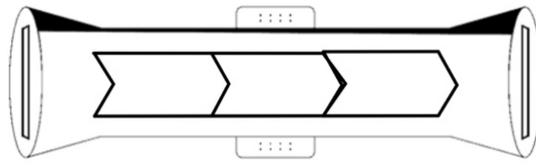
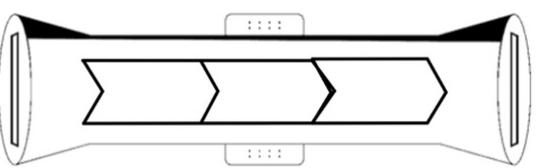
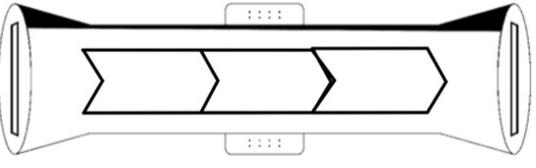


4. **BUILD** - Go to the Equations screen. Build functions using three different operations.

***DO NOT** click simplify for the equation*

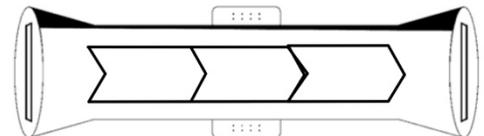
$$y = \frac{2}{3}x$$

Equations

Function	Equation	Explain how the equation relates to each operation in the function.
		
		
		

5. **DISCUSS** - With your partner, discuss how you think the function below changes the INPUTS. Fill in the function rule with the correct operations.

$$y = \frac{3(x+1)}{-2}$$



6. **CHALLENGE** - On the Equations screen, create a three-step function using a variety of operations. Click the hide  button. Can your partner guess your function rule?

7. **WRITE** - Go back to the functions that you built in #2. Write an equation to model those functions.