

# Workout

## Hot & Cold chirping Crickets

1. If the pattern in each column continues, what is  $y$  when  $x = 93$ ?

X	Y
6	4
9	6
12	8
⋮	⋮
24	16
⋮	⋮
93	

2. How did you decide what number to fill in for the  $y$  value?
3. How could you write this process as a mathematical rule (i.e., an equation)? *Hint: Remember to use parentheses to tell others in what order they need to perform the operations.*

4. Use your equation to find the value of  $y$  when  $x = 54$ .
5. Here is the number sentence that Joan wrote:  $y = \frac{(x-6)}{3} \cdot 2 + 4$ . Choose an  $x$  value in the table and see if Joan's equation gives the correct value of  $y$  paired with the  $x$  you chose.
6. What does each part of the equation **mean**:
- a.  $(x - 6)$ :

b.  $\frac{(x-6)}{3}$ :

c.  $\frac{(x-6)}{3} \cdot 2$ :

d.  $\frac{(x-6)}{3} \cdot 2 + 4$ :

7. Why must slope equal  $\frac{\text{change in } y}{\text{change in } x}$  and not the inverse of this ratio?





8. How could you write an equation directly from the table or a graph of the data table?

### Check Your Pulse

Compare your answers with a partner. Discuss where you agree or disagree.

1. In a few words, explain what part(s) were difficult for you?

Circle the thumb that best describes how you are feeling:

	I have lots of questions, I need help. 	Almost got it, but need practice. 	Got it. I can explain this to a classmate. 
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