

Lesson 9-3 • Group 2

Reinforce Understanding

9.3 Small Group • Group 2

I can write an equation from a table or a graph to model the relationship between the dependent and independent variables, explain what each part stands for, and build one for a situation I have not seen before.

Worked model

A table shows x : 1, 2, 3, 4 hours worked and y : 18, 36, 54, 72 dollars earned. Write an equation.

1. Define the variables: x = hours worked, y = total dollars earned.
2. Check each row for one rate: $18 \div 1$, $36 \div 2$, and $54 \div 3$ all give 18.
3. The constant rate is 18 dollars per hour, so y is 18 times x .
4. Write it: $y = 18x$. Test the last row: $18 \times 4 \rightarrow 72$, which matches.

Answer: $y = 18x$, where x is hours worked and y is total dollars earned.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. A canoe rents for \$15 per hour: $c = 15h$. Complete the table.

Complete the table. Show how you found each value.

Hours (h)	Substitute	Cost in dollars (c)
2		
5		
8		

Show your work

2. Match each scenario to the equation that models it.

Write the letter of the matching item on each line.

1. _____ Canoe rental: \$15 per hour
 2. _____ Gym membership: \$24.95 per month
 3. _____ Football tickets: \$45 each
 4. _____ Tram climbing 1,200 feet per minute
- $Ac = 15h$
 - $Bc = 24.95m$
 - $Cc = 45t$
 - $Dd = 1200m$