Apply Two-Variable Relationships to Solve Problems

Write an equation for two connected quantities, then use it to solve a real problem.

Name _____ **Date** _____

Tonight's spark

A car plant makes 2.5 cars every hour. A new order ticket asks for 1,000 cars. How many hours must the plant run to fill the order?

Guess first: more than 100 hours, or fewer?

Hours (h)	Cars (c)
1	2.5
8	20
?	1,000

×8

Our class model: the four-step equation plan

Try it

Work it out on paper. Write one answer on each line.

1 **The equation c = 4n gives the cost c of n tickets. What is c when n = 6?**

A. 10 **B.** 24 **C.** 46 **D.** 2

My answer _____

2 **Using c = 4n, find n when c = 20.**

A. 80 **B.** 16 **C.** 5 **D.** 24

My answer _____

3 **To solve 4n = 20, what is the first step?**

A. Divide both sides by 4 **B.** Add 4 to both sides **C.** Multiply both sides by 4
D. Subtract 20 from both sides

My answer _____

4 **In y = x + 8, what is y when x = 7?**

A. 56 **B.** 1 **C.** 87 **D.** 15

My answer _____

5 **A gym charges $9 per visit: m = 9v. You have $45. How many visits can you pay for?**

A. 36 **B.** 5 **C.** 54 **D.** 405

My answer _____

Talk about it

Each hour makes more than 1 car. Should the hours be more or fewer than 1,000?

Home mission

Find a pitcher and see how many cups it holds. Pretend you pour 2 cups each time. Can your student write an equation like 2p = the pitcher size, solve for p, and say what it means?

If we get stuck, ask

- What does the equation say in words?
- Which number do you already know?
- What does your answer mean in the story?

Do it on a screen

Scan or type the link. Same lesson, with hints.

eduwonderlab.com/lessons/9-4/homework.html

How did it feel? (optional)

Tricky Getting there Got it