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NAME

Module 9 Using Functions
Lesson 5 Solving Problems Using Functions

guided notes

Lesson Objectives

- Write and use formulas as functions.
- Given a word problem, write ordered pairs and use them to write functions.
- Use functions to solve problems.

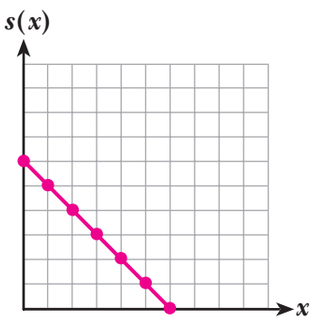
To write the area formula $A = s^2$ as a function, write

$A(s) = s^2$.

1. Roxy earns nine dollars an hour babysitting. Write a function to describe how much she earns for working h hours. Use that function to find her earnings for working eight hours. $E(h) = 9h$, $E(8) = 72$

2. Write an equation for the function that describes how many sodas are left in a six-pack after x sodas have been consumed. Graph the function.

$s(x) = 6 - x$



Slope-intercept form of a linear function is $f(x) = mx + b$.

3. Before a big game, a football stadium opened its doors at noon. Two minutes later, 420 people had entered the stadium. If the pattern of fans entering the stadium is linear, predict the number of people in the stadium half an hour after the doors have opened. $f(t) = 210t$, $f(30) = 6{,}300$

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