x+y Solve a System of Equations Using Substitution	Name:
^{*1} Choose the best answer	
A fashion photographer needs to hire a stylist to prepare his models for a shoot. Savannah charges \$17 for showing up plus \$16 per hour. Dylan charges \$19 to show up plus \$15 per hour. Given the expected duration of his photo shoot, either stylist would cost him the same amount. What would the cost be? What would the duration be?	
• \$53 for 3 hours • \$49 for 2 hours	
O \$52 for 2 hours O \$54 for 2 hours	Show your work
^{#2} Choose the best answer	
Sydney uses rechargeable batteries. One battery has already been charged 22 percent and charges at a rate of 9 percent an hour. Sydney starts charging another battery that still has 14 percent of its charge left, and charges at a rate of 11 percent an hour. How long will it be until both batteries are at the same charge percentage? What percentage will they have charged?	
O 58% after 4 hours O 55% after 4 hours	
O 59% after 4 hours O 56% after 5 hours	Show your work
^{#3} Choose the best answer	
Dale and Chuck are training to run a marathon. Jacob, their trainer, showed up half way through their training session and saw that Dale had completed 17 laps and was setting a pace of 16 laps per hour, and Chuck was done 19 laps and was setting a pace of 15 laps per hour. If they both tied in the end, how long did it take them to finish?	
• 49 laps took them 2 hours • 44 laps took them 3 hours	
O 51 laps took them 2 hours O 54 laps took them 2 hours	Show your work
Set more worksheets at http://www.mathg	ames.com/worksheets CC.8.71 Page 1 of 4

TeachMe, Inc. ©2025 All rights reserved.

ore worksheets at http://www.mathgames.com/worksh Play online at http://www.mathgames.com/skill/8.71 leets

ĸ+y	Solve a System of Equations Using Substitution	Name:
#4	Choose the best answer	
	Dale and Chuck are training to run a marathon. Ashley, their trainer, showed up half way through their training session and saw that Dale had completed 21 laps and was setting a pace of 2 laps per hour, and Chuck was done 14 laps and was setting a pace of 9 laps per hour. If they both tied in the end, how long did it take them to finish?	
(21 laps took them 2 hours O 24 laps took them 1 hours	
(23 laps took them 1 hours O 22 laps took them 1 hours	Show your work
#5	Choose the best answer	
	Farmer Chloe has harvested 19 tonnes of wheat so far, and can harvest 12 tonnes per day. Her neighbor Farmer Sophia can harvest 11 tonnes per day, and has 24 tonnes of wheat already in stock. If they harvest as much as they can every day, how many days will it take for them to have the same amount of wheat? How many tonnes of wheat will they have both harvested?	
(75 tonnes after 5 days 75 tonnes after 5 days	
(78 tonnes after 6 days 82 tonnes after 5 days 	Show your work
ŧ6	Choose the best answer	
	Cameron and Nathan are in a hot dog eating competition. By the time Samantha gets there Cameron has eaten 21 hot dogs and Nathan has eaten 14. According to their stats Cameron can eat 2 hot dogs a minute, while Nathan can eat 9. How long will it be until they are tied, and how many hot dog will they have eaten in that time?	
C	20 each after 1 minutes O 23 each after 1 minutes	
-	22 each after 2 minutes O 28 each after 1 minutes	Show your work

Play online at http://www.mathgames.com/skill/8.71 TeachMe, Inc. ©2025 All rights reserved.

x+y Solve a System of Equations Using Substitution	Name:
^{#7} Choose the best answer	
Cameron has just unplugged his fridge so it can defrost. The freezer is at 23 degrees and warms up at 4 degrees an hour. The fridge part is at 11 degrees and rises 7 degrees per hour. How many hours will it take for both the fridge and the freezer to be the same temperature? What is the temperature change in that time span?	
O 38 degrees in 4 hours O 39 degrees in 4 hours	
• 44 degrees in 4 hours • 43 degrees in 5 hours	Show your work
^{**} Choose the best answer	
Michael has just unplugged his fridge so it can defrost. The freezer is at 13 degrees and warms up at 9 degrees an hour. The fridge part is at 21 degrees and rises 7 degrees per hour. How many hours will it take for both the fridge and the freezer to be the same temperature? What is the temperature change in that time span?	
O 47 degrees in 4 hours O 45 degrees in 5 hours	
O 50 degrees in 4 hours O 49 degrees in 4 hours	Show your work
^{*•} Choose the best answer	
Nick has just unplugged his fridge so it can defrost. The freezer is at 22 degrees and warms up at 8 degrees an hour. The fridge part is at 14 degrees and rises 12 degrees per hour. How many hours will it take for both the fridge and the freezer to be the same temperature? What is the temperature change in that time span?	
O 36 degrees in 2 hours O 38 degrees in 2 hours	
O 37 degrees in 3 hours O 34 degrees in 2 hours	Show your work
Get more worksheets at http://www.mathg	ames.com/worksheets CC.8.71 Page 3 of 4

ore worksheets at http://www.mathgames.com/worksheets Play online at http://www.mathgames.com/skill/8.71

TeachMe, Inc. ©2025 All rights reserved.

Show your work
Show your work
Show your work

TeachMe, Inc. ©2025 All rights reserved.

Get more worksheets at http://www.mathgames.com/worksheets Play online at http://www.mathgames.com/skill/8.71

x+y Solve a System of Equations Using Substitution

Question	Answer
#1	choice 2
#2	choice 1
#3	choice 1
#4	choice 3
#5	choice 2
#6	choice 2
#7	choice 2
#8	choice 4
#9	choice 2
#10	choice 1
#11	choice 3
#12	choice 2

