Do Now

Describe and correct the error in solving for one of the variables in the linear system $4x + 2y = 6$

$3x + y = 9$

Step 1 $3x + y = 9$

$y = 9 - 3x$

Step 2 $4x + 2(9 - 3x) = 6$

$4x + 18 - 6x = 6$

$-2x = -12$

$x = 6$

Step 3 $3x + y = 9$

$3x + 6 = 9$

$3x = 3$

$x = 1$

$3(6) + y = 9$

$18 + y = 9$

$-18 \quad -18$

$y = -9$

Jan 24-1:01 PM

Classwork Answers

3. Let x = 1st number

y = 2nd number

x + y = 36

x - y = 24

30 and 6 are the two numbers

4. Let x = smaller number

y = larger number

x + y = 104

y = 2x - 1

35 is the smaller number and 69 is the larger numbers

Homework Answers

1. Let x = 1st number

y = 2nd number

x + y = 30

x - y = 12

21 and 9 are the two numbers

2. Let x = 1st number

y = 2nd number

x + y = 24

x - y = 2

13 and 11 are the two numbers

3. Let x = 1st number

y = 2nd number

x - y = 9

x + 2y = 27

15 and 6 are the two numbers

Dec 18-6:53 AM

The owner of a men's clothing store bought six belts and eight hats for $140. A week later, at the same prices, he bought nine belts and six hats for $132. Find the price of a belt and the price of a hat.

let x = # hat
y = # belt

$3(8x + 6y = 140)$
$-2(6x + 9y = 132)$

$24x + 18y = 420$
$-12x - 18y = -264$

$\frac{12x}{12} = \frac{156}{12}$

$x = 13$

$8x + 6y = 140$
$8(13) + 6y = 140$
$104 + 6y = 140$
$-104 \quad -104$
$\frac{6y}{6} = \frac{36}{6}$
$y = 6$

Cost of hat = $13
Cost of belt = $6

Mar 11-7:13 AM

There were 100 tickets sold to last night's concert. Some of the tickets were sold to students at $2 and the rest were sold to adults at $2.50. The booster club collected $220 in ticket sales. How many of each type of ticket were sold?

let x = # of student tix
y = # of adult tix

60 students
40 adults

$2x + 2.50y = 220$ $
$-2[x + y = 100]$ # of tickets

$-2x - 2y = -200$
$+ \ 2x + 2.50y = 220$

$.50y = 20$
$.50 \quad .50$
$y = 40$

$x + y = 100$
$x + 40 = 100$
$-40 \quad -40$
$x = 60$

Mar 11-7:14 AM