Infinite Algebra 1

Question numbers | Show answers | Directions | Changing questions hides answers | Lines | Zoom: | More like these | ← | Jump | → | 1-up

7) The senior classes at High School A and High School B planned separate trips to th park. The senior class at High School A rented and filled 13 vans and 11 buses wit School B rented and filled 1 van and 5 buses with 119 students. Every van had the students in it as did the buses. How many students can a van carry? How many stu carry?

H.S.A. 13 vans 11 buses 413 students

H.S.B. 1 van 5 buses 119 students

Let x = number of students in a van

Let y = number of students in a bus

① $13x + 11y = 413$

② $1x + 5y = 119$

Isolate x in ②

$1x + 5y = 119$

$-5y \quad -5y$

$1x = -5y + 119$

Substitute in ①

$13(-5y + 119) + 11y = 413$

$-65y + 1547 + 11y = 413$

$-1547 \quad -1547$

$\frac{-54y}{-54} = \frac{-1134}{-54}$

$y = 21$

Start | 9:09 AM 2/19/2015

8) Ndiba and Maria are selling cookie dough for a school fundraiser. Customers can l white chocoloate chip cookie dough and packages of gingerbread cookie dough. N packages of white chocoloate chip cookie dough and 4 packages of gingerbread co of $130. Maria sold 2 packages of white chocoloate chip cookie dough and 8 pack cookie dough for a total of $98. Find the cost each of one package of white chocol dough and one package of gingerbread cookie dough.

Ndiba 10 W.C
4 G.C
$130

Maria 2 W.C
8 G.C
$98

Let x = White C. (cost)

Let y = GC (cost)

① $10x + 4y = 130(-2)$

② $2x + 8y = 98$

$-20x - 8y = -260$

$2x + 8y = 98$

$-18x = -162$

$-18 \quad -18$

$x = 9$

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Solve each system by elimination.

5) (1) $12 = -8y + 4x$
(2) $-6x + 3y = -9$

Solve for x in (1)

$12 = 8y + 4x$

$12 = -8(-1) + 4x$

$12 = 8 + 4x$

$\frac{4}{4} = \frac{4x}{4}$

$x = 1$

Check in (2)

L.S. $-6x + 3y$

$-6(1) + 3(-1)$

$-6 - 3$

-9

R.S. -9

L.S. = R.S.

POI (1, -1)

(1) $-4x + 8y = -12 \times (-3)$

(2) $-6x + 3y = -9 \times (2)$

(1) $12x - 24y = 36$

(2) $-12x + 6y = -18$

$\frac{-18y}{-18} = \frac{18}{-18}$

$y = -1$

Start | 9:46 AM 2/19/2015