Algebra 1 Name_____ ID: 1

6.2 Worksheet

Date_____ Period____

Solve each system by substitution.

1) $y = 2$
$-x + 3y = 7$

2) $-4x + 2y = -6$
$y = -3$

3) $-16x + 2y = 18$
$-8x + y = 9$

4) $-2x + 6y = -2$
$x - 3y = -4$

5) $y = 4$
$-4x + 6y = 20$

6) $-8x + 2y = 10$
$8x + y = 5$

7) $-x + y = 0$
$-x - 5y = 0$

8) $-3x + y = -4$
$3x - y = 2$

9) $x + 7y = 24$
$3x + 2y = -4$

10) $6x - 6y = -12$
$-4x + y = 17$

11) $12x + 3y = 42$
$4x + y = 14$

12) $-4x + 3y = 2$
$x - 3y = 13$

13) The local amusement park is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 14 vans and 12 buses with 400 students. High School B rented and filled 12 vans and 4 buses with 192 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.

14) Kayla and Amy each improved their yards by planting daylilies and ivy. They bought their supplies from the same store. Kayla spent $210 on 12 daylilies and 11 pots of ivy. Amy spent $114 on 6 daylilies and 7 pots of ivy. Find the cost of one daylily and the cost of one pot of ivy.

15) Beth's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 8 senior citizen tickets and 3 child tickets for a total of $97. The school took in $82 on the second day by selling 2 senior citizen tickets and 6 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

Answers to 6.2 Worksheet (ID: 1)

1) $(-1, 2)$
2) $(0, -3)$
3) Infinite number of solutions
4) No solution
5) $(1, 4)$
6) $(0, 5)$
7) $(0, 0)$
8) No solution
9) $(-4, 4)$
10) $(-5, -3)$
11) Infinite number of solutions
12) $(-5, -6)$
13) Van: 8, Bus: 24
14) daylily: \$12, pot of ivy: \$6
15) senior citizen ticket: \$8, child ticket: \$11