Algebra 1 - Mount Si High School Name_____

Solving Systems by Elimination

Date_____ Period____

Solve each system by elimination.

1) $3x + 4y = -8$
$-3x + 4y = -8$

2) $-3x + 2y = 9$
$-x - 2y = 3$

3) $5x + 10y = -5$
$-x - 5y = 4$

4) $8x + 6y = 16$
$4x + 5y = 16$

5) $-5x + 3y = -10$
$-6x + 2y = -12$

6) $5x - 2y = 1$
$4x - 5y = 11$

7) $6x - 4y = 12$
$-5x - 3y = -10$

8) $3x - 4y = -18$
$5x + 3y = -1$

9) Gabriella and DeShawn are selling fruit for a school fundraiser. Customers can buy small boxes of tangerines and large boxes of tangerines. Gabriella sold 2 small boxes of tangerines and 4 large boxes of tangerines for a total of $34. DeShawn sold 2 small boxes of tangerines and 6 large boxes of tangerines for a total of $46. What is the cost each of one small box of tangerines and one large box of tangerines?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

10) Jaidee and Willie each improved their yards by planting hostas and geraniums. They bought their supplies from the same store. Jaidee spent $23 on 1 hosta and 3 geraniums. Willie spent $38 on 1 hosta and 6 geraniums. What is the cost of one hosta and the cost of one geranium?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

11) The water 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 2 vans and 6 buses with 170 students. High School B rented and filled 2 vans and 2 buses with 70 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

12) The state fair 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 4 vans and 2 buses with 156 students. High School B rented and filled 4 vans and 3 buses with 212 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

13) Willie and Ryan are selling cookie dough for a school fundraiser. Customers can buy packages of chocolate chip cookie dough and packages of double chocolate cookie dough. Willie sold 1 package of chocolate chip cookie dough and 1 package of double chocolate cookie dough for a total of $29. Ryan sold 1 package of chocolate chip cookie dough and 5 packages of double chocolate cookie dough for a total of $105. Find the cost each of one package of chocolate chip cookie dough and one package of double chocolate cookie dough.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

14) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 5 vans and 1 bus with 100 students. High School B rented and filled 4 vans and 1 bus with 84 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.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

15) Jill's school is selling tickets to a play. On the first day of ticket sales the school sold 3 adult tickets and 6 child tickets for a total of $111. The school took in $100 on the second day by selling 2 adult tickets and 6 child tickets. Find the price of an adult ticket and the price of a child ticket.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

16) The senior classes at High School A and High School B planned separate trips to the county fair. The senior class at High School A rented and filled 1 van and 4 buses with 227 students. High School B rented and filled 2 vans and 4 buses with 242 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

17) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 8 vans and 1 bus with 87 students. High School B rented and filled 4 vans and 7 buses with 193 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.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

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1) $3x + 4y = -8$
$-3x + 4y = -8$

$(0, -2)$

2) $-3x + 2y = 9$ $(-3, 0)$
$-x - 2y = 3$

3) $5x + 10y = -5$
$-x - 5y = 4$

$(1, -1)$

4) $8x + 6y = 16$ $(-1, 4)$
$4x + 5y = 16$

5) $-5x + 3y = -10$
$-6x + 2y = -12$

$(2, 0)$

6) $5x - 2y = 1$ $(-1, -3)$
$4x - 5y = 11$

7) $6x - 4y = 12$
$-5x - 3y = -10$

$(2, 0)$

8) $3x - 4y = -18$ $(-2, 3)$
$5x + 3y = -1$

9) Gabriella and DeShawn are selling fruit for a school fundraiser. Customers can buy small boxes of tangerines and large boxes of tangerines. Gabriella sold 2 small boxes of tangerines and 4 large boxes of tangerines for a total of $34. DeShawn sold 2 small boxes of tangerines and 6 large boxes of tangerines for a total of $46. What is the cost each of one small box of tangerines and one large box of tangerines?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:
small box of tangerines: $5, large box of tangerines: $6

10) Jaidee and Willie each improved their yards by planting hostas and geraniums. They bought their supplies from the same store. Jaidee spent $23 on 1 hosta and 3 geraniums. Willie spent $38 on 1 hosta and 6 geraniums. What is the cost of one hosta and the cost of one geranium?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

hosta: $8, geranium: $5

11) The water 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 2 vans and 6 buses with 170 students. High School B rented and filled 2 vans and 2 buses with 70 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

Van: 10, Bus: 25

12) The state fair 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 4 vans and 2 buses with 156 students. High School B rented and filled 4 vans and 3 buses with 212 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

Van: 11, Bus: 56

13) Willie and Ryan are selling cookie dough for a school fundraiser. Customers can buy packages of chocolate chip cookie dough and packages of double chocolate cookie dough. Willie sold 1 package of chocolate chip cookie dough and 1 package of double chocolate cookie dough for a total of $29. Ryan sold 1 package of chocolate chip cookie dough and 5 packages of double chocolate cookie dough for a total of $105. Find the cost each of one package of chocolate chip cookie dough and one package of double chocolate cookie dough.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:
package of chocolate chip cookie dough: $10, package of double chocolate cookie dough: $19

14) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 5 vans and 1 bus with 100 students. High School B rented and filled 4 vans and 1 bus with 84 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.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:
Van: 16, Bus: 20

15) Jill's school is selling tickets to a play. On the first day of ticket sales the school sold 3 adult tickets and 6 child tickets for a total of $111. The school took in $100 on the second day by selling 2 adult tickets and 6 child tickets. Find the price of an adult ticket and the price of a child ticket.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:
adult ticket: $11, child ticket: $13

16) The senior classes at High School A and High School B planned separate trips to the county fair. The senior class at High School A rented and filled 1 van and 4 buses with 227 students. High School B rented and filled 2 vans and 4 buses with 242 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

Van: 15, Bus: 53

17) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 8 vans and 1 bus with 87 students. High School B rented and filled 4 vans and 7 buses with 193 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.

Let x = _____, Let y = _____

Equation 1 = _____ , Equation 2 = _____

Solve:

Answer:

Van: 8, Bus: 23