

Name _____

Date _____ Pd. _____

Notes: Elimination using Addition and Subtraction Day 3

Example 1 Use addition to solve the system of equations.

$$x - 3y = 7$$

$$3x + 3y = 9$$

Example 2 The sum of two numbers is 70 and their difference is 24. Find the numbers.

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Exit Card: Elimination using Addition and Subtraction Day 3

Martin and Anna buy books at a sale. Martin buys 3 hardcover books and 4 paperback books for \$6.50. Anna buys 2 hardcover books and 6 paperback books for \$6.00. What is the cost, in dollars, of each hardcover book?

Sam needs to rent a van for a school field trip. Van Company A charges a one-time fee of \$250 plus \$10 for each mile driven. Van Company B charges a one-time fee of \$150 plus \$12 for each mile driven. Let x represent the number of miles driven. Let y represent the total cost, in dollars, to rent the van. Which system of equations models this situation?

- A $y = 250 - 10x$
 $y = 150 - 12x$
- B $y = 10x - 250$
 $y = 12x - 150$
- C $y = 250x + 10$
 $y = 150x + 12$
- D $y = 10x + 250$
 $y = 12x + 150$

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

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Homework: Pages 385 – 386 (18, 19, 34 – 36, 42, 43)

18.
$$\begin{cases} 3r - 5s = -35 \\ 2r - 5s = -30 \end{cases}$$

19.
$$\begin{cases} 13a + 5b = -11 \\ 13a + 11b = 7 \end{cases}$$

34. In 1999, the United States produced about 2 million more motor vehicles than Japan. Together, the two countries produced about 22 million motor vehicles. How many vehicles were produced in each country?

35. A youth group and their leaders visited Mammoth Cave. Two adults and 5 students in one van paid \$77 for the Grand Avenue Tour of the cave. Two adults and seven students in a second van paid \$95 for the same tour. Find the adult price and the student price of the tour.

36. During the National Football League's 1999 season, Troy Aikman, the quarterback for the Dallas Cowboys, earned \$0.467 million more than Deion Sanders, a Cowboys cornerback. Together, they cost the Cowboys \$12.867 million. How much did each player make?

42. If $2x - 3y = -9$ and $3x - 3y = -12$, what is the value of y ?

A -3

B 1

C $(-3, 1)$

D $(1, -3)$

43. What is the solution of $4x + 2y = 8$ and $2x + 2y = 2$?

A $(-2, 3)$

B $(3, 2)$

C $(3, -2)$

D $(12, -3)$