

Name _____

Date _____ Pd. _____

Notes: Substitution and Elimination using Addition and Subtraction

Example

CHEMISTRY How much of a 10% saline solution should be mixed with a 20% saline solution to obtain 1000 milliliters of a 12% saline solution?

Name _____

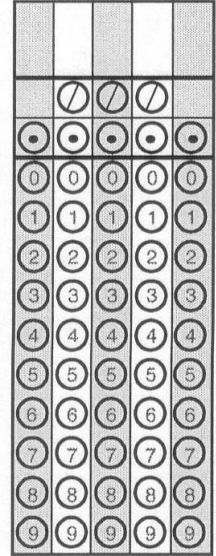
Date _____ Pd. _____

Exit Card: Substitution and Elimination using Addition and Subtraction

Kwame is considering two cell-phone plans.
The costs for two different plans are as follows.

Cell Phone Plans

Plans	A	B
Flat Fee	\$20.00	\$30.00
Price per Minute	\$0.50	\$0.25



Mary graphed the system of equations below.

$$y = \frac{3}{2}x + \frac{7}{2}$$

$$y = -\frac{2}{3}x + \frac{7}{3}$$

Which of these best describes the relationship between the two lines?

- A They have no point in common.
- B They have one point in common.
- C They have two points in common.
- D They have infinite points in common.

The senior class sold school spirit items. The table below shows the number of items sold on the first day of a two-day sale.

SCHOOL SPIRIT ITEMS
SOLD ON THE FIRST DAY

Item	Number Sold
T-shirt	15
Frisbee	14
Hat	22
Pen	23
Ribbon	16

Based on sales from the first day, what is the probability that the first person on the second day of the sale will buy a hat?

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Homework: Pages 379 – 381 (22, 32 – 35, 41, 42)

22.
$$\begin{cases} 5r - s = 5 \\ -4r + 5s = 17 \end{cases}$$

32. Supplementary angles are two angles whose measures have the sum of 180 degrees. Angles X and Y are supplementary, and the measure of angle X is 24 degrees greater than the measure of angle Y . Find the measures of angles X and Y .

33. At the end of the 2000 baseball season, the New York Yankees and the Cincinnati Reds had won a total of 31 World Series. The Yankees had won 5.2 times as many World Series as the Reds. How many World Series did each team win?

Shantel Jones has two job offers as a car salesperson. At one dealership, she will receive \$600 per month plus a commission of 2% of the total price of the automobiles she sells. At the other dealership, she will receive \$1000 per month plus a commission of 1.5% on her total sales.

34. What is the total price of the automobiles that Ms. Jones must sell each month to make the same income from either dealership?

35. Explain which job offer is better.

41. When solving the following system, which expression could be substituted for x ?

$$\begin{cases} x + 4y = 1 \\ 2x - 3y = -9 \end{cases}$$

A $4y - 1$

B $1 - 4y$

C $3y - 9$

D $-9 - 3y$

42. If $x - 3y = -9$ and $5x - 2y = 7$, what is the value of x ?

A 1

B 2

C 3

D 4