

Name _____

Date _____

Prof. Abel

MTH 098 Elementary Algebra

Class #16

Solving Systems of Equations - Algebraically by Elimination

Quality - Accuracy - Transfer - 100%

Section 1. Solving Systems of Consistent Linear Equations - By Elimination.

1. Write the following equations in "Columns" Form: _____

a. $3x + 12 = 4y$ _____

b. $5b + 7 - 2a = 0$ _____

c. $16 + 4a = 5b$ _____

d. $15y = 2x + 20$ _____

e. $15 = 3y + 5x$ _____

Section 2. Goal for Simultaneous Linear Equations:

2. After arrangement in "columns" work to create _____ coefficients.

Solve the Following :

a. $x - 2y = 6$
 $3x + 2y = 2$

b. $x + y = 6$
 $2x - y = 3$

c. $3x + y = 13$
 $x - y = 8$

d. $4x = -2y - 18$
 $-5y = 2x + 10$

Sometimes you have to decide which variable to eliminate, and to multiply through on both equations.

e.
$$\begin{aligned} 2x + 3y &= 6 \\ 5x - 4y &= -8 \end{aligned}$$

Inconsistent and Dependent Equations:

f.
$$\begin{aligned} 2x + y &= 3 \\ 4x + 2y &= 12 \end{aligned}$$

g.
$$\begin{aligned} x - \frac{1}{2}y &= 2 \\ -2x + y &= -4 \end{aligned}$$

4. When the length of a rectangle is x and the width is y inches, the perimeter is 28 feet. If the length is doubled and the width is tripled, the perimeter becomes 66 feet. Find the length and width of the original rectangle.

Section 3. Solving 2 Variable Word Problems by SUBSTITUTION.

5. Mr. DeCarolis left \$25,000 to be split between his daughter and his son. The son received \$5000 less than the daughter. How much was received by each child?
6. The sum of two numbers is 104. The larger number is 1 less than twice the smaller number. Find the numbers.

HW Section

Section	Page(s)	Problem(s)
9.3	575 → 576	5, 7, 11, 13, 17, 19, 23, 31
9.5	593 → 594	3, 5, 9, 11, 13

Name _____

MTH 098 Elementary Algebra

Date _____

Class #16

Prof. Abel

Class #16 - Post Lesson

Quality - Accuracy - Transfer - 100%

1. A seedman sells seeds. He has seeds worth \$.70 per pound and seeds worth \$.90 per pound. How many pounds of each seed must he mix to have 300 pounds of seed to sell as a mixture for \$.75 per pound?

Name _____

MTH 098 Elementary Algebra

Date _____

Class #16

Prof. Abel

Class #16 - Post Lesson

Quality - Accuracy - Transfer - 100%

1. A seedman sells seeds. He has seeds worth \$.70 per pound and seeds worth \$.90 per pound. How many pounds of each seed must he mix to have 300 pounds of seed to sell as a mixture for \$.75 per pound?

Name _____

Date _____

Prof. Abel

MTH 098 Elementary Algebra

Class #16

Class #16 - Post Lesson

Quality - Accuracy - Transfer - 100%

1. A seedman sells seeds. He has seeds worth \$.70 per pound and seeds worth \$.90 per pound. How many pounds of each seed must he mix to have 300 pounds of seed to sell as a mixture for \$.75 per pound?

2. Mr. West invested \$7200, part at 4%, and the rest at 5%. How much has to be invested at each rate for the incomes from both investments to be the same?
