CTJan27 School of English & Mathematics

Name_

Date_____

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Solving Simultaneous Equations - Year 8

Solve each system by substitution.

1)
$$x - y = -7$$
2) $-6x + y = -24$ $5x + 2y = 7$ $5x - 7y = 20$

3) -4x + y = 16-4x - 8y = 16 4) -5x + y = -13-x - 2y = 15

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

 $8x - 7y = -2$
6) $x - 4y = 6$
 $2x - 8y = -1$





Solve each system by elimination.

11) $20x + 9y = 9$	12) $5x + 12y = 22$
10x - y = -1	9x - 4y = 14

13) -18x - 10y = 09x + 6y = 0 14) 12x + y = -306x - 7y = 30

15)
$$9x + y = 0$$
16) $-6x + 9y = 18$ $18x - 9y = 0$ $12x - 18y = -30$

17)
$$7x - 7y = 14$$

 $-x + 2y = -9$
18) $-2x - 8y = -14$
 $6x + 10y = 14$

$19) \ -10x - 4y = 14$	20) $-3x - 7y = 14$
-4x + 2y = 2	-9x - 14y = 28

Solve each system by graphing.

21)
$$y = -x - 2$$

 $y = 4x + 3$
22) $y = -2x - 4$
 $y = -\frac{1}{4}x + 3$

23)
$$y = -\frac{1}{2}x + 2$$

 $y = -2x - 4$
24) $y = -\frac{7}{4}x - 3$
 $y = -\frac{1}{2}x + 2$

$$25) \quad y = -\frac{1}{4}x + 4$$
$$y = \frac{5}{4}x - 2$$

26) Aliyah and Wilbur are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Aliyah sold 12 rolls of plain wrapping paper and 1 roll of shiny wrapping paper for a total of \$248. Wilbur sold 6 rolls of plain wrapping paper and 4 rolls of shiny wrapping paper for a total of \$194. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

27) Shreya and Anjali are selling cheesecakes for a school fundraiser. Customers can buy pecan cheesecakes and apple cheesecakes. Shreya sold 11 pecan cheesecakes and 7 apple cheesecakes for a total of \$295. Anjali sold 7 pecan cheesecakes and 14 apple cheesecakes for a total of \$350. Find the cost each of one pecan cheesecake and one apple cheesecake.

28) Shanice's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 2 senior citizen tickets and 14 child tickets for a total of \$216. The school took in \$123 on the second day by selling 6 senior citizen tickets and 7 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

29) Adam's school is selling tickets to a play. On the first day of ticket sales the school sold 7 adult tickets and 13 student tickets for a total of \$109. The school took in \$155 on the second day by selling 14 adult tickets and 5 student tickets. Find the price of an adult ticket and the price of a student ticket.

30) Kim and Adam are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Kim sold 12 rolls of plain wrapping paper and 4 rolls of shiny wrapping paper for a total of \$148. Adam sold 4 rolls of plain wrapping paper and 3 rolls of shiny wrapping paper for a total of \$66. Find the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper.