Name : _____ Score : _____

Teacher : _____ Date : _____

Cramers Rule with System of 3 Equations

Use Cramers Rule to solve each system.

1) $7x + 8y - 8z = 23$
$7x + 7y + 7z = 140$
$-7x - 4y - 3z = -99$

2) $7x - 9y - 5z = -141$
$-4x - 4y - 4z = 12$
$3x + 9y - 7z = 7$

3) $5x + 4y + 4z = -21$
$-8x - 8y - 8z = 24$
$3x + 5y - 2z = 45$

4) $6x - 7y + 6z = -144$
$x + y + z = -1$
$2x - 8y + 2z = 10$

5) $3x + 3y - 3z = -6$
$4x + 4y + 4z = -24$
$-8x - 8y - 5z = 42$

6) $8x - 2y + 7z = 79$
$4x + 4y + 4z = 20$
$-6x + 4y + 6z = -58$

7) $6x + 6y + 9z = -30$
$3x + 3y + 3z = 0$
$5x + 5y - 6z = 110$

8) $-4x - 3y - 9z = 73$
$-2x - 2y - 2z = 30$
$4x - 4y - 7z = -11$

9) $-7x - 6y + 6z = -99$
$x + y + z = -1$
$-9x - 8y + 7z = -121$

10) $-6x - 8y + 3z = 123$
$4x + 4y + 4z = -28$
$-x - 9y + 5z = 121$

11) $-9x + 3y + 8z = -101$
$8x + 8y + 8z = 88$
$4x + y + 3z = 51$

12) $-9x + 2y + 2z = 90$
$6x + 6y + 6z = -60$
$-7x + 5y + 5z = 115$

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1) $7x + 8y - 8z = 23$
$7x + 7y + 7z = 140$
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(9 , 3 , 8)

2) $7x - 9y - 5z = -141$
$-4x - 4y - 4z = 12$
$3x + 9y - 7z = 7$
(-11 , 6 , 2)

3) $5x + 4y + 4z = -21$
$-8x - 8y - 8z = 24$
$3x + 5y - 2z = 45$
(-9 , 12 , -6)

4) $6x - 7y + 6z = -144$
$x + y + z = -1$
$2x - 8y + 2z = 10$
No Solution

5) $3x + 3y - 3z = -6$
$4x + 4y + 4z = -24$
$-8x - 8y - 5z = 42$
Infinitely Many Solutions

6) $8x - 2y + 7z = 79$
$4x + 4y + 4z = 20$
$-6x + 4y + 6z = -58$
(8 , -4 , 1)

7) $6x + 6y + 9z = -30$
$3x + 3y + 3z = 0$
$5x + 5y - 6z = 110$
Infinitely Many Solutions

8) $-4x - 3y - 9z = 73$
$-2x - 2y - 2z = 30$
$4x - 4y - 7z = -11$
(-10 , -2 , -3)

9) $-7x - 6y + 6z = -99$
$x + y + z = -1$
$-9x - 8y + 7z = -121$
(9 , -2 , -8)

10) $-6x - 8y + 3z = 123$
$4x + 4y + 4z = -28$
$-x - 9y + 5z = 121$
(-5 , -9 , 7)

11) $-9x + 3y + 8z = -101$
$8x + 8y + 8z = 88$
$4x + y + 3z = 51$
(12 , -3 , 2)

12) $-9x + 2y + 2z = 90$
$6x + 6y + 6z = -60$
$-7x + 5y + 5z = 115$
No Solution