# Matrices

Name:_____ Date:_____

## Cramer's Rules

1

$5x + 15y + z = 75$

$3x + 5y + z = 15$

$9x + y + 3z = 3$

_____

2

$18x + 3y + z = 54$

$3x + 12y + 9z = 36$

$16x + y + 3z = 48$

_____

3

$16x + 5y + 2z = 80$

$5x + 12y + 2z = 60$

$18x + 5y + 2z = 90$

_____

4

$12x + 2y + 6z = 24$

$8x + 4y + 16z = 64$

$2x + y + 14z = 74$

_____

5

$16x + y + 4z = 64$

$12x + y + 4z = 32$

$8x + y + 8z = 64$

_____

6

$17x + 5y + z = 85$

$5x + y + 13z = 65$

$15x + 5y + z = 75$

_____

7

$8x + y + 18z = 96$

$9x + y + 2z = 18$

$18x + 2y + z = 36$

_____

8

$8x + 5y + 5z = 40$

$15x + 5y + 5z = 75$

$5x + 6y + 5z = 30$

_____

9

$20x + 4y + 2z = 40$

$6x + 4y + 20z = 24$

$6x + 20y + z = 6$

_____

10

$15x + 2y + z = 90$

$5x + y + 3z = 15$

$4x + 5y + 2z = 10$

_____

# Matrices

Name:_____ Date:_____

## Cramer's Rules

**1**

$5x + 15y + z = 75$

$3x + 5y + z = 15$

$9x + y + 3z = 3$

$(15, 3, -45)$

**2**

$18x + 3y + z = 54$

$3x + 12y + 9z = 36$

$16x + y + 3z = 48$

$\left(\frac{35}{13}, \frac{19}{13}, \frac{15}{13}\right)$

**3**

$16x + 5y + 2z = 80$

$5x + 12y + 2z = 60$

$18x + 5y + 2z = 90$

$\left(5, 5, \frac{-25}{2}\right)$

**4**

$12x + 2y + 6z = 24$

$8x + 4y + 16z = 64$

$2x + y + 14z = 74$

$\left(\frac{9}{20}, \frac{-81}{10}, \frac{29}{5}\right)$

**5**

$16x + y + 4z = 64$

$12x + y + 4z = 32$

$8x + y + 8z = 64$

$(8, -128, 16)$

**6**

$17x + 5y + z = 85$

$5x + y + 13z = 65$

$15x + 5y + z = 75$

$\left(5, \frac{-5}{8}, \frac{25}{8}\right)$

**7**

$8x + y + 18z = 96$

$9x + y + 2z = 18$

$18x + 2y + z = 36$

$(-78, 720, 0)$

**8**

$8x + 5y + 5z = 40$

$15x + 5y + 5z = 75$

$5x + 6y + 5z = 30$

$(5, 5, -5)$

**9**

$20x + 4y + 2z = 40$

$6x + 4y + 20z = 24$

$6x + 20y + z = 6$

$\left(2, \frac{-1}{3}, \frac{2}{3}\right)$

**10**

$15x + 2y + z = 90$

$5x + y + 3z = 15$

$4x + 5y + 2z = 10$

$\left(\frac{13}{2}, -1, \frac{-11}{2}\right)$