

Matrices

Name: _____

Date: _____

Cramer's Rules

1

$$3x + 3y + 16z = 48$$

$$9x + 2y + 8z = 36$$

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

2

$$10x + y + 10z = 100$$

$$15x + 2y + 2z = 60$$

$$2x + 5y + 2z = 20$$

3

$$14x + 6y + 10z = 140$$

$$7x + 3y + 8z = 56$$

$$4x + 3y + 2z = 2$$

4

$$7x + 4y + 4z = 112$$

$$7x + 14y + 4z = 112$$

$$2x + 7y + z = 14$$

5

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

$$3x + 3y + 19z = 171$$

$$9x + 3y + 3z = 81$$

6

$$20x + y + 7z = 140$$

$$18x + 4y + z = 72$$

$$2x + y + 17z = 34$$

7

$$18x + 8y + z = 144$$

$$3x + 4y + 12z = 144$$

$$3x + 4y + z = 12$$

8

$$15x + y + 7z = 105$$

$$3x + 5y + z = 15$$

$$7x + y + 3z = 21$$

9

$$3x + 6y + 3z = 54$$

$$2x + 6y + 9z = 108$$

$$x + 9y + 12z = 108$$

10

$$16x + y + 6z = 96$$

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

$$4x + y + 8z = 32$$

Matrices

Name: _____

Date: _____

Cramer's Rules

1

$$3x + 3y + 16z = 48$$

$$9x + 2y + 8z = 36 \quad \underline{(4, -36, 9)}$$

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

2

$$10x + y + 10z = 100$$

$$15x + 2y + 2z = 60 \quad \underline{\left(\frac{40}{13}, 0, \frac{90}{13}\right)}$$

$$2x + 5y + 2z = 20$$

3

$$14x + 6y + 10z = 140$$

$$7x + 3y + 8z = 56 \quad \underline{\left(\frac{82}{3}, \frac{-98}{3}, \frac{-14}{3}\right)}$$

$$4x + 3y + 2z = 2$$

4

$$7x + 4y + 4z = 112$$

$$7x + 14y + 4z = 112 \quad \underline{(-56, 0, 126)}$$

$$2x + 7y + z = 14$$

5

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

$$3x + 3y + 19z = 171 \quad \underline{(9, -9, 9)}$$

$$9x + 3y + 3z = 81$$

6

$$20x + y + 7z = 140$$

$$18x + 4y + z = 72 \quad \underline{(7, -14, 2)}$$

$$2x + y + 17z = 34$$

7

$$18x + 8y + z = 144$$

$$3x + 4y + 12z = 144 \quad \underline{\left(11, \frac{-33}{4}, 12\right)}$$

$$3x + 4y + z = 12$$

8

$$15x + y + 7z = 105$$

$$3x + 5y + z = 15 \quad \underline{(-51, 9, 123)}$$

$$7x + y + 3z = 21$$

9

$$3x + 6y + 3z = 54$$

$$2x + 6y + 9z = 108 \quad \underline{(18, -6, 12)}$$

$$x + 9y + 12z = 108$$

10

$$16x + y + 6z = 96$$

$$4x + y + 4z = 16 \quad \underline{(6, -24, 4)}$$

$$4x + y + 8z = 32$$