

**Systems of equations – Any method: 3 variables**

WS #1

Solve the following equations.

$$-12x + 13y + z = -23$$

$$13x + 12y - 2z = -19$$

$$-6x + 8y - 3z = 17$$

$$8x - 9y - 7z = 18$$

$$-9x + 10y + 8z = -20$$

$$6x + 9y - 11z = 12$$

$$7x + 6y - 9z = 22$$

$$8x + 4y - 7z = 15$$

$$11x - 6y + 8z = -7$$

$$2x + 4y - 7z = 19$$

$$3x + 2y + 5z = 21$$

$$x - 3y + 7z = 9$$

$$13x - 14y - 15z = 25$$

$$-12x + 13y + 15z = -22$$

$$11x - 7y - 14z = 15$$

$$-6x + 7y + 5z = 13$$

$$5x - 7y + 6z = 15$$

$$4x - 3y + 5z = 23$$

$$5x + 4y + 3z = 15$$

$$4x + 5y + 7z = -13$$

$$-3x + 4y - 2z = 18$$

$$14x - 11y - 5z = 19$$

$$7x + 6y + 9z = 21$$

$$13x - 6y + 8z = 5$$

$$13x - 11y + 12z = -4$$

$$-10x + 11y - 13z = 12$$

$$11x - 10y + 12z = -5$$

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

$$-4x + 2y - 7z = 3$$

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