SISTEMA DE TRES ECUACIONES CON TRES INCOGNITAS

**METODO DE DETERMINANTES O CRAMER**

**5x + 10y + 15z = 50**

**15x + 20y = 50 Estas diagonales se suman Estas se restan**

**10x + 10y + 10z = 50**

=5(20)10 + 10(0)10 + 15(15)10 - 10(15)20 - 5(0)10 - 15(20)10

=1,000 + 0 + 2,250 - 1,500 - 0 - 3,000

 **D = -1,250**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **x**D= | **y** | **z** | **x** | **y** |
|  **5** | **10** | **15** |  **5** | **10** |
| **15** **10** | **20** **10** | **0** **10** | **15** **10** | **20****10** |

50(20)10 + 10(0)50 + 15(50)10 - 10(50)10 - 50(0)10 - 15(20)50

=10,000 + 0 + 7,500 - 5,000 - 0 - 15,000

 **Dx = -2,500**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#**Dx= | **y** | **z** | **#** | **y** |
| **50** | **10** | **15** | **50** | **10** |
| **50** | **20** | **0** |  **50** | **20** |
| **50** | **10** | **10** | **50** | **10** |

5 (50)10 + 50(0)10 + 15(15)50 - 50(15)10 – 5 (0)50 - 15(50)10

=2,500 + 0 + 11,250 - 7,500 - 0 - 7,500

 **Dy = -1,250**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **x**Dy= | **#** | **z** | **x** | **#** |
| **5**  | **50** | **15** | **5**  | **50** |
|  **15** |  **50** | **0** |  **15** | **50** |
| **10** | **50** | **10** | **10** | **50** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **x**Dz= | **y** | **#** | **x** | **y**5 (20)50 + 10(50)10 + 50(15)10 - 10(15)50 – 5 (50)10 - 50(20)10=5,000 + 5,000 + 7,500 - 7,500 - 2,500 - 10,000  **Dz = -2,500** |
| **5** | **10** | **50** | **5** | **10** |
| **15** | **20** | **50** |  **15** | **20** |
| **10** | **10** | **50** | **10** | **10** |

$$x=\frac{Dx}{D}= \frac{-2,500 }{-1,250 }=2 y=\frac{Dy}{D}= \frac{-1,250 }{-1,250 }=1 z=\frac{Dz}{D}= \frac{-2,500 }{-1,250 }=2$$

**SOLUCIÓN: ( x, y, z ) = ( 2, 1, 2 )**

**IMÁGENES A TERCERA DIMENSIÓN**







