University of Central Punjab

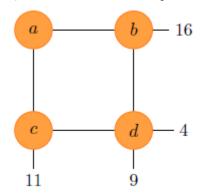1. **How Should the values of a, b and c be chosen so that the system**

$$ax + by - 3z = -3$$
$$-2x - by + cz = -1$$
$$ax + 3y - cz = -3$$

    has the solution $x = 1, y = -1$ and $z = 2$.

2. **Imagine a body made of four parts, and name the density of each part as a, b, c and d:**

    Our goal is to recover these densities by taking multiple x-rays across the body. In our case, this amounts to adding the image densities and putting them equal to how much that particular signal was reduced. Can we find the four unknowns given the sums in the diagram?