3 09-02-2025

3.1 Checkpoint 2.45

Find the distance between point (0,3,6) and the line with parametric equations

$$x = 1 - t, y = 1 + 2t, z = 5 + 3t$$

3.2 Checkpoint 2.46

Describe the relationship between the lines with the following parametric equations:

$$x = 1 - 4t, y = 3 + t, z = 8 - 6t$$

$$x = 2 + 3s, y = 2s, z = -1 - 3s$$

3.3 Checkpoint 2.47

Find an equation of the plane containing the lines L1 and L2:

$$L1: x = -y = z$$

$$L2: x - 32 = y = z - 2$$

3.4 Checkpoint 2.48

Find the distance between point P = (5, -1, 0) and the plane given by 4x + 2y - z = 3.