

Bài 10

$$n_1(x-x_0) + n_2(y-y_0) + n_3(z-z_0) = 0$$

$$\Rightarrow -3(x-1) + (-1)(y+1) + 2(z-3) = 0$$

$$\Rightarrow -3x + 3 - y - 1 + 2z - 6 = 0$$

$$\Rightarrow -3x - y + 2z = 4.$$

Bài 11:

$$2x - 3y - z = 6$$

$$P_0(3, -1, 2)$$

$$\Rightarrow \vec{n} = (2, -3, -1)$$

$\Rightarrow$  PT mặt phẳng cần tìm:

$$n_1(x-x_0) + n_2(y-y_0) + n_3(z-z_0) = 0$$

$$\Rightarrow 2(x-3) + (-3)(y+1) - (z-2) = 0$$

$$\Rightarrow 2x - 6 - 3y - 3 - z + 2 = 0$$

$$\Rightarrow 2x - 3y - z = 7$$

Bài 12:

$$D = \frac{|ax_0 + by_0 + cz_0 - d|}{\sqrt{a^2 + b^2 + c^2}}$$

$$D = \frac{|3 \cdot 2 + (-1) \cdot (-1) + 4 \cdot (-3) - 1|}{\sqrt{9 + 1 + 16}}$$

$$D = \frac{|6 + 1 - 12 - 1|}{\sqrt{26}} = \frac{|-6|}{\sqrt{26}} = \frac{6}{\sqrt{26}} \approx 1,178.$$