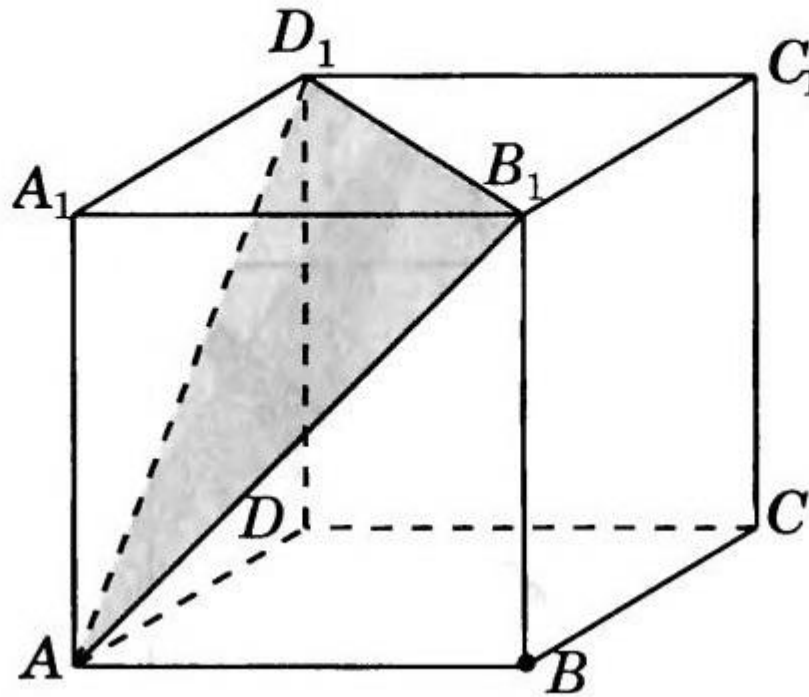


В единичном кубе  $A...D_1$  найдите расстояние от точки  $B$  до плоскости  $AB_1D_1$ .

$$Ax + By + Cz + D = 0$$



$$\begin{aligned} A(1;0;0) \\ D_1(0;0;1) \\ B_1(1;1;1) \\ B(1;1;0) \end{aligned}$$

$$\begin{aligned} A + D &= 0 \\ C + D &= 0 \\ A + B + C + D &= 0 \end{aligned}$$

$$\begin{aligned} A &= -D \\ C &= -D \\ -D + B - D + D &= 0 \quad B = D \end{aligned}$$

$$\begin{aligned} -Dx + Dy - Dz + D &= 0 \quad | :D \\ -x + y - z + 1 &= 0 \\ D &= 1 \end{aligned}$$

$$\begin{aligned} n\{-1; 1; -1\} \\ B(1;1;0) \end{aligned}$$

$$p = (-1 + 1 + 1) / (\sqrt{3}) = 1/\sqrt{3} = \sqrt{3}/3$$

$$d = \frac{|A \cdot M_x + B \cdot M_y + C \cdot M_z + D|}{\sqrt{A^2 + B^2 + C^2}}$$