

XVI-6

$$l: \left[\frac{x-3}{1} = \frac{y}{2} = \frac{z+1}{2} \right]$$

$$\pi: -2x + y + 3 = 0$$

$$l \parallel \pi \Leftrightarrow \vec{u} \perp \vec{n}$$

\uparrow wekt. kier. l \uparrow wekt. normalny π

$$\vec{u} = (1, 2, 2) \quad \vec{n} = (-2, 1, 0)$$

$$\vec{u} \cdot \vec{n} = 1 \cdot (-2) + 2 \cdot 1 + 2 \cdot 0 = 0 \Rightarrow \vec{u} \perp \vec{n}$$

wybieramy jakiś $P \in l$, np. $P = (3, 0, -1)$

$$d(l, \pi) = d(P, \pi) = \frac{|-2 \cdot 3 + 0 + 3|}{\sqrt{(-2)^2 + 1^2 + 0^2}} = \frac{3}{\sqrt{5}}$$

\uparrow
 $l \parallel \pi$

