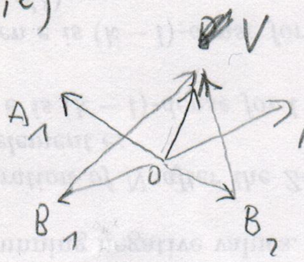
FOLD3) Unormowane $A_1, A_2, B_1, B_2$, K - strona płaszczyzny

$$\cancel{}\ |A_1| = |A_2| = |B_1| = |B_2| = 1$$

Szukamy $\cancel{B'}$ $V=(x,y,z)$




1° $V\cdot V = 1$

2° $A_2\cdot(V-B_2)=0$, $A_1\cdot(V-B_1)=0$ // $V-B_i \perp A_i$

3° $x^2+y^2+z^2=1$ // z 1°

4° $A_i\cdot V = A_i\cdot B_i$

$$\left.\begin{array}{l} A_i\cdot V = A_i\cdot B_i \\ \parallel \\ xA_i[x]+yA_i[y]+zA_i[z]=A_iB_i \end{array}\right\} \text{dla } i=1,2$$ // z 2°

5° $xA_1[x]\cdot A_2[x] = (A_1B_1 - yA_1[y]-zA_1[z])A_2[x]$

$xA_2[x]\cdot A_1[x] = (A_2B_2 - yA_2[y]-zA_2[z])A_1[x]$ // z 4°

6° $(A_1B_1 - yA_1[y]-zA_1[z])A_2[x] = (A_2B_2-yA_2[y]-zA_2[z])\cdot A_1[x]$

7° $z(A_2[z]A_1[x]-A_1[z]A_2[x]) = y(A_1[y]\cdot A_2[x]-A_2[y]A_1[x]) + A_2B_2A_1[x] - A_1B_1A_2[x]$

załóż, że $m = A_2[z]A_1[x]-A_1[z]A_2[x] \neq 0$

$z = y\cdot p + q$

gdzie $p = \dfrac{A_1[y]\cdot A_2[x]-A_2[y]A_1[x]}{m}$

$q = \dfrac{A_2B_2A_1[x] - A_1B_1A_2[x]}{m}$

FOLD 2)

8° $x^2 = 1 - y^2 - z^2$ // z 3°

$$x^2 A_2^2[x] = (1-y^2-z^2) A_2^2[x]$$

9° $x^2 A_2^2[x] = \left(A_2 B_2 - y A_2[y] - z A_2[z]\right)^2$ // z 4° dla $i=2$

10°

$$(1-y^2-z^2) A_2^2[x] = \left(A_2 B_2 - y A_2[y] - z A_2[z]\right)^2$$

$$\left(1-y^2-(py+q)^2\right) A_2^2[x] = \left(A_2 B_2 - y A_2[y] - (py+q) A_2[z]\right)^2$$

$$\left(1-y^2-p^2y^2-2pqy-q^2\right) A_2^2[x] = \left(A_2 B_2 - q A_2[z] - y\left(A_2[y] + p A_2[z]\right)\right)^2$$

$$\left(-y^2(1+p^2) - y(2pq) + 1 - q^2\right) A_2^2[x] =$$

$$= \left(A_2 B_2 - q A_2[z]\right)^2 - y\,2\left(A_2 B_2 - q A_2[z]\right)\left(A_2[y] + p A_2[z]\right) + y^2\left(A_2[y] + p A_2[z]\right)^2$$

$$0 = y^2\left((1+p^2) A_2^2[x] + \left(A_2[y] + p A_2[z]\right)^2\right) + y\left(2pq A_2^2[x] - 2\left(A_2 B_2 - q A_2[z]\right)\left(A_2[y] + p A_2[z]\right)\right) + (q^2-1) A_2^2[x] + \left(A_2 B_2 - q A_2[z]\right)^2$$