

The problem seems to be the quadrangles  $abcd$  and  $aefi$ , and the hexagon  $cdefgh$ .

To check that  $a, b, c$  and  $d$  are not coplanar for  $t > 1$ , let's compute

$$\begin{vmatrix} c-b \\ d-b \\ a-b \end{vmatrix} = \begin{vmatrix} t^3 - t^5 & t-1 & t-1 \\ t^2 - t^5 & t-1 & t^2-1 \\ 1-t^5 & 0 & t^5-1 \end{vmatrix} = \begin{vmatrix} 1 & 0 & -1 \\ t^4+t^3 & -1 & -1 \\ t^4+t^3+t^2 & -1 & -t-1 \end{vmatrix}$$

$$= t+1+t^4+t^3 - t^4-t^3-t^2-1 = t-t^2 \neq 0$$

But, on the contrary and surprisingly,  $c, d, e, f, g$  and  $h$  are coplanar. Let's compute

$$\begin{vmatrix} g-h \\ c-h \\ d-h \end{vmatrix} = \begin{vmatrix} t^2-t^3 & t^3-t^2 & 0 \\ 0 & t-t^2 & t-1 \\ t^2-t^3 & t-t^2 & t^2-1 \end{vmatrix} = \begin{vmatrix} 1 & -1 & 0 \\ 0 & t & -1 \\ t^2 & t & -t-1 \end{vmatrix}$$

$$= -t^2-t+t^2+t = 0$$