Question

Which of these vector-valued functions of u and v does *not* have range which is contained in a plane?

A. $\vec{r}(u,v) = \langle 3,1,2\rangle + u^2\langle 1,-1,0\rangle + v\langle 1,0,0\rangle$

B. $\vec{r}(u,v) = \langle 3,1,2\rangle + u\langle 1,-1,0\rangle + v\langle 1,0,0\rangle$

C. $\vec{r}(u,v) = (3+u+v)\vec{i} + (1-u)\vec{j} + 2\vec{k}$

D. $\vec{r}(u,v) = u\vec{i} + v\vec{j} + uv\vec{k}$