1. [The surface of] a sphere can be thought of as a graph.

(a) True
(b) False
How can you represent the graph of a function $f(x, y)$ as a parametric surface?
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(a) $(f(u, v), u, v)$
(b) $(u, f(u, v), v)$
(c) $(u, v, f(u, v))$
(d) $(f(u), f(v), f(u, v))$
(e) You can’t.
Find the parameterizations for the plane spanned by the vectors $\vec{\alpha}$ and $\vec{\beta}$.
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(a) $F(u, v) = uv\vec{\alpha} \cdot \vec{\beta}$
(b) $F(u, v) = (u, v, u\vec{\alpha} + v\vec{\beta})$
(c) $F(u, v) = (u, v, \|\vec{\alpha} \times \vec{\beta}\| u)$
(d) $F(u, v) = u\vec{\alpha} + v\vec{\beta}$
(e) None of these are correct.
For a surface $F(u, v)$, $(T_u + T_v)$ is also a tangent vector.

(a) Always
(b) Sometimes
(c) Never