

exercise 1:

Let u, v, w be in $\mathbb{R}^3$, t be in $\mathbb{R}$. Using coordinates, prove the identities $(u+v) \cdot w = u \cdot w + v \cdot w$ and $(tu) \cdot v = t(u \cdot v)$.

exercise 2:

<https://openstax.org/books/calculus-volume-3/pages/2-5-equations-of-lines-and-planes-in-space>
243, 247

exercise 3:

251, a.

exercise 4:

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exercise 5:

276. Note that $i = (1, 0, 0)$, $j = (0, 1, 0)$.

exercise 6:

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exercise 7:

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