Reading Quiz §6 & 8

1. Recall that the Klein 4 group V has a Cayley table shown to the right. Recall also that $\mathbb{Z}_2$ forms a group under addition modulo 2.

V	e	a	b	c
e	e	a	b	c
a	a	e	c	b
b	b	c	e	a
c	c	b	a	e

   (a) [2] Write down the elements in $\mathbb{Z}_2 \times V$.

   (b) [1] Compute $(1, a) \star (0, b)$ in $\mathbb{Z}_2 \times V$.

2. [2] Define the alternating group on 3 elements A_3, and write down explicitly a group element that is not the identity.