1. Rewrite the equation of the plane

$$x - 4y + 2z = 6$$

- in intercept form.
- using a dot product between a normal vector and a vector in the plane.

2. (a) Let $\underline{u}$ be the vector  and $\underline{v}$ be the vector  .
Is $\underline{u} \times \underline{v}$ into the page/screen or out of the page (towards you)?

◯ into the page ◯ out of the page

(b) Compute $(\underline{i} - \underline{j} + \underline{k}) \times (-3\underline{i} + \underline{j})$ **using distributive and scalar multiplication properties** of the cross product along with the cross product relationships between $\underline{i}, \underline{j}, \underline{k}$.

cross product: