

## Answer on Question #69282 – Math – Calculus

### Question

Let  $u = \langle -6, -2 \rangle$ ,  $v = \langle -2, 3 \rangle$ . Find  $-3u + 2v$ .

### Solution

1. Find  $-3u$ :

$$-3u = -3 \langle -6, -2 \rangle = \langle (-3) \cdot (-6), (-3) \cdot (-2) \rangle = \langle 18, 6 \rangle$$

2. Find  $2v$ :

$$2v = 2 \langle -2, 3 \rangle = \langle 2 \cdot (-2), 2 \cdot 3 \rangle = \langle -4, 6 \rangle$$

3. Find  $-3u + 2v$ :

$$-3u + 2v = \langle 18, 6 \rangle + \langle -4, 6 \rangle = \langle 18 - 4, 6 + 6 \rangle = \langle 14, 12 \rangle.$$

**Answer:**  $\langle 14, 12 \rangle$ .