

## **Study Unit 8**

### **Activity 8-6**

*Consider the following vectors:  $u = (3, 1)$ ,  $v = (-4, -4)$ , and  $w = (0, -1)$ . Determine the following:*

$$\begin{aligned}(a) \quad 2u + v &= 2(3, 1) + (-4, -4) \\&= (6, 2) + (-4, -4) \\&= (2, -2) \\(b) \quad u - 3v &= (3, 1) - 3(-4, -4) \\&= (3, 1) + (12, 12) \\&= (15, 13) \\(c) \quad -3(v + w) &= -3[(-4, -4) + (0, -1)] \\&= -3(-4, -5) \\&= (12, 15)\end{aligned}$$