

Study Unit 8

Activity 8-6

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

- (a) $2u + v = 2(3, 1) + (-4, -4)$
 $= (6, 2) + (-4, -4)$
 $= (2, -2)$
- (b) $u - 3v = (3, 1) - 3(-4, -4)$
 $= (3, 1) + (12, 12)$
 $= (15, 13)$
- (c) $-3(v + w) = -3[(-4, -4) + (0, -1)]$
 $= -3(-4, -5)$
 $= (12, 15)$