

## Answer on Question #52357 – Math – Vector Calculus

For the following vectors:

$$a = (1, -5, 9), b = (-4, 12, -6), c = (-3, 5, -7)$$

Calculate the following:

a)  $a+b$

b)  $b-c$

c)  $2a$

### Solution

$$A=(1,-5,9)$$

$$B=(-4,13,-6)$$

$$C=(-3,5,-7)$$

a)  $A+B=(A_x + B_x, A_y + B_y, A_z + B_z)=(1-4, -5+13, 9-6)=(-3, 12, 3)$

b)  $B-C=(B_x - C_x, B_y - C_y, B_z - C_z)=(-4-3, 13-5, -6+7)=(-7, 8, 1)$

c)  $2A=(2A_x, 2A_y, 2A_z)=(2, -10, 18)$ .