a. (38,7,100) – (10,0,156) = (28,7,-56)

b. sqrt( 28\*28 + 7\*7 + (-56)\*(-56)) = sqrt(3969) = 63

c. mag of (-2,1,-2) = sqrt(4+1+4) = 3 Ans = (1/3) (-2,1,-2)

d. (28,7,-56) \* (1/3) (-2,1,-2) = (1/3) \* (28(-2) + 7(1)+(-56)(-2)) = (1/3)(-56 + 7 +112) = (1/3)(63) = 21>0

Yes

e. 63<80 and facing so yes

f (1/63) (28,7,-56)

g velocity = ArrowSpeed \* (1/63) (28,7,-56)

2a. Frame rate independence is achieved by tying the motion of an object to something other than Frame Rates i.e. time

2b.