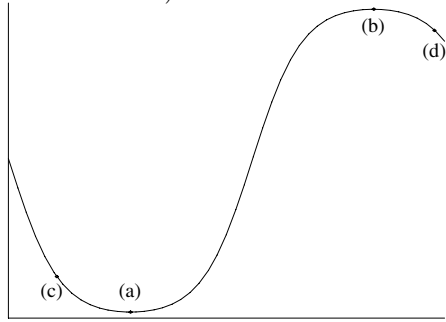


14. From Eq. 2-4 and Eq. 2-9, we note that the sign of the velocity is the sign of the slope in an x -vs- t plot, and the sign of the acceleration corresponds to whether such a curve is concave up or concave down. In the interest of saving space, we indicate sample points for parts (a)-(d) in a single figure; this means that all points are not at $t = 1$ s (which we feel is an acceptable modification of the problem – since the datum $t = 1$ s is not used).



Any change from zero to non-zero values of \vec{v} represents increasing $|\vec{v}|$ (speed). Also, $\vec{v} \parallel \vec{a}$ implies that the particle is going faster. Thus, points (a), (b) and (d) involve increasing speed.