1. Complete the following diagram to the right that relates position-time ( $\overrightarrow{\boldsymbol{d}}-\boldsymbol{t} \quad$ ), velocity-timet $t \quad$ ), and acceleration-time ( $\vec{a}-\boldsymbol{t}$ ) graphs.
2. For each of the following d-t graphs:
(a) sketch the corresponding v-t and a-t graphs (solid lines).
(b) sketch the corresponding v-t and a-t graphs (dotted lines).
(c) is there a difference between (a) and (b)?

3. Indicate on your diagrams those graphs that represent (i) uniform motion and (ii) non-uniform motion.

## $d-\dagger$



