Motion Maps and Motion Graphs

Sketch motion maps, velocity vs time graphs and position vs time graphs for the situations described below.

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| **Motion Map** | Velocity vs time | Position vs time |
| The object is moving in the positive direction from the origin at constant speed |  |  |
| The object is standing still to the right of the origin |  |  |
| The object starts to the right of the origin moves in the negative direction at a steady speed for 10 s |  |  |
| The object starts at the origin and moves in the positive direction at a steady speed for 10 seconds, reverses direction and moves back toward the origin at the same speed. |  |  |
| An object moves to the right at constant velocity from the origin and remains in place for 2 s then moves to the left at a constant but slower speed. |  |  |