

## Motion Diagram Worksheet

1. Create a motion diagram showing the “dots” for a man walking backward at constant speed for 4 seconds. Draw one dot for each  $\frac{1}{2}$  second.
2. Create a motion diagram for the tip of the second hand of a clock. Draw one dot for every six seconds.
3. What happens to the speed of the tip of the second hand in #2 as it moves around the clock?
4. What happens to the direction of motion of the second hand in #2 as it moves around the clock?
5. Imagine the start of a car in a drag race. Sketch the kind of motion diagram you would see for the car, including the time after the parachute deploys until the car comes to a stop.
6. Sketch a motion diagram for a skydiver beginning when she leaves the plane and ending when she comes to rest on the ground. Think about whether there is a time or times when she is moving at constant speed.