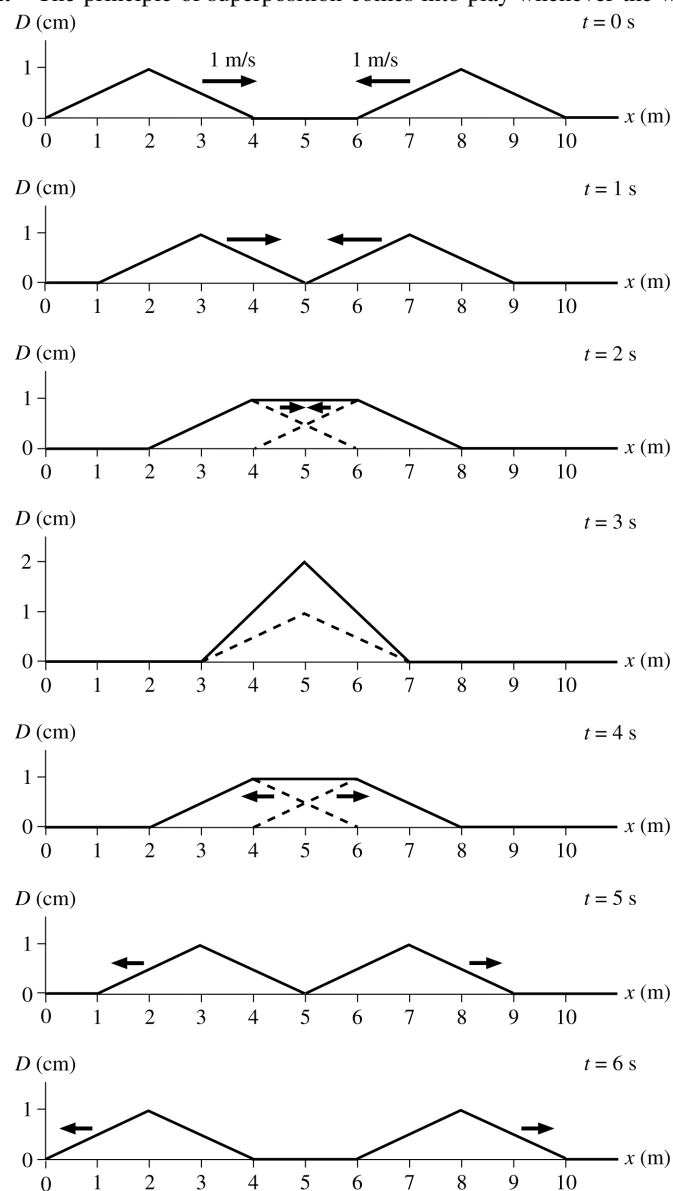


**21.1. Model:** The principle of superposition comes into play whenever the waves overlap.

**Visualize:**



The graph at  $t = 1$  s differs from the graph at  $t = 0$  s in that the left wave has moved to the right by 1 m and the right wave has moved to the left by 1 m. This is because the distance covered by the wave pulse in 1 s is 1 m. The snapshot graphs at  $t = 2$  s, 3 s, and 4 s are a superposition of the left and the right moving waves. The overlapping parts of the two waves are shown by the dotted lines.