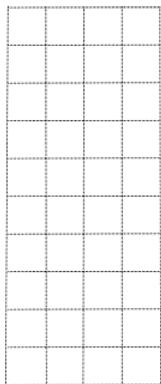


I-81

A 55 kg pole-vaulter, just before touching the cushion on which she lands after a jump, is falling downward at a speed of 10 m/s. The pole-vaulter sinks about 2.0 m into the cushion before stopping.

Motion Diagram

Free-Body Diagram



Event 1:

$t_1 =$

$r_1 =$

$v_1 =$

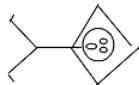
$a_{12} =$

Event 2:

$t_2 =$

$r_2 =$

$v_2 =$



Mathematical Analysis

This page titled [I-81](#) is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by [Paul D'Alessandris](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.