

Answers - Quiz 2

1. Addition of damping brings the spheres to a stable position faster. After the first contact with the rigid box, the spheres with damping travel a lesser distance upwards as compared to those without damping.
2. All Abaqus/Explicit analyses require a density value because Abaqus/Explicit solves for dynamic equilibrium (i.e., inertia effects are considered)
3. **R3D4** which are 4 noded rigid elements
4. **0.14 sec**, using the equation of motion under gravity: $s = ut + \frac{1}{2}gt^2$
In our case $u = 0$, $s = 100$ and $g = 9800 \text{ mm/s}^2$