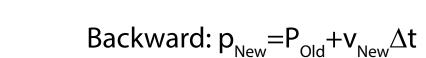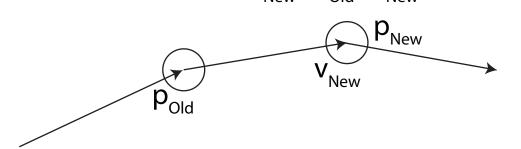Forward: $p_{New} = P_{Old} + v_{Old} \Delta t$

Backward: $p_{New} = P_{Old} + v_{New} \Delta t$

Centered: $p_{New} = P_{Old} + 0.5 (v_{Old} + v_{New}) \Delta t$