

## 8.2) Modelling assumptions

## Worked example

List assumptions you would make to create a simple model of:

- The motion of two objects of different masses connected by a string that passes over a pulley
- The motion of a child on a sledge going down a snow-covered hill

## Your turn

List assumptions you would make to create a simple model of:

- The motion of a golf ball after it is hit

Model the golf ball as a particle. Ignore the effects of air resistance. Ignore the rotational effect of any external forces acting on it.

- The motion of a suitcase on wheels being pulled along a path by its handle

Model the suitcase and handle as a single particle, consider the path to be smooth, and ignore friction between the wheels and their holdings.