

Law of Conservation of Energy

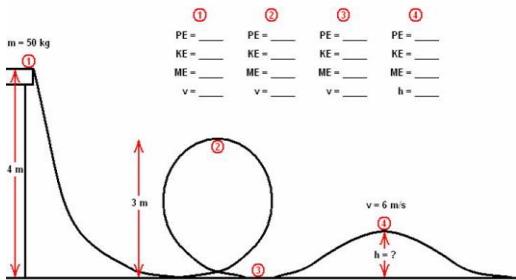
Roller Coaster

Assumptions

- Assume the initial velocity = 0 m/s
- Make each of the given numbers have 3 SF

1

2



3

4

Answers

1. $PE = 1960 \text{ J}$ $KE = 0 \text{ J}$ $v = 0 \text{ m/s}$
2. $PE = 1470 \text{ J}$ $KE = 490 \text{ J}$ $v = 4.43 \text{ m/s}$
3. $PE = 0 \text{ J}$ $KE = 1960 \text{ J}$ $v = 8.85 \text{ m/s}$
4. $PE = 1060 \text{ J}$ $KE = 900 \text{ J}$ $h = 2.16 \text{ m/s}$