

# Dissipated Energy in a Roller Coaster

Name: \_\_\_\_\_

For each image, calculate the  $E_g$ ,  $E_k$  and  $E_{diss}$ . The total Mechanical Energy in the first image will be the total system energy. On each image, the height and velocity of the coaster are provided for that position.

Find the Energy of the 30 kg coaster at position one. Fill in the pie chart quantitatively.

Velocity: 16 m/s

h = 8 m

Legend:  
 ■ Dissipated Energy  
 □ Potential Energy  
 ▨ Kinetic Energy

Find the Energy of the 30 kg coaster at position two. Fill in the pie chart quantitatively.

Velocity: 20 m/s

h = 0 m

Legend:  
 ■ Dissipated Energy  
 □ Potential Energy  
 ▨ Kinetic Energy



