

6.29 To find the average force you must first calculate the acceleration (or negative acceleration since it is slowing down).

Use

$$v_f^2 = v_i^2 + 2ad$$

to solve for the acceleration ( convert distance into meters)

Then use  $F = ma$  to solve for the average force

6.30 You move it to a new height of 1.5 m. The work done is just the change in gravitational potential energy  $mgh$

6.33 The work done is just the change in GPE

6.34 Once again work is equal to  $mgh$

6.35 GPE is turned into KE so set them equal and solve for height.