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change = ..... N s [4]

- (c) the average force acting on the ball during contact with the surface.

force = ..... N [2]

- 4 (a) Explain what is meant by the concept of *work*.

.....  
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- (b) Using your answer to (a), derive an expression for the increase in gravitational potential energy  $\Delta E_p$  when an object of mass  $m$  is raised vertically through a distance  $\Delta h$  near the Earth's surface.

The acceleration of free fall near the Earth's surface is  $g$ . [2]

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