14 A ball, initially at rest, is dropped from a vertical height of h metres above the Earth's surface.

After 4 seconds the ball's height above the Earth's surface is $0.2h$ metres.

14 (a) Assuming air resistance can be ignored, show that

$$h = 10g$$

[3 marks]

14 (b) Assuming air resistance cannot be ignored, explain the effect that this would have on the value of h in part **(a)**.

[1 mark]