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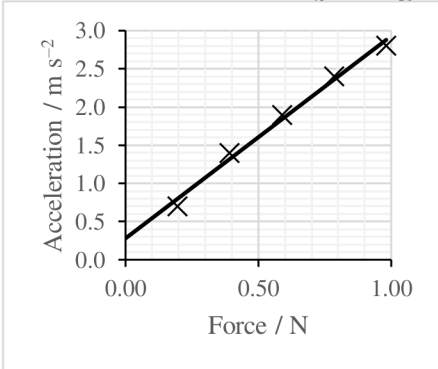
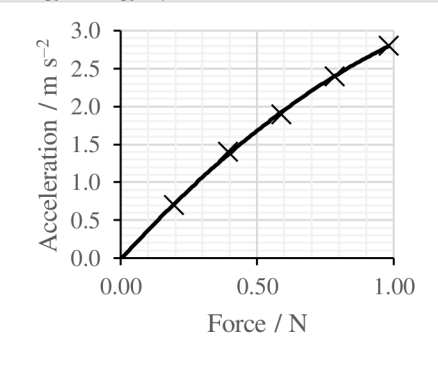
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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark
1(a)	<ul style="list-style-type: none"> • A measurement of distance travelled (1) • A measurement of time taken (1) • Appropriate measuring equipment for both, e.g. metre rule, stop clock, light gates (1) • See $s = ut + \frac{1}{2}at^2$ (1) • Repeat and calculate mean (1) <p>OR</p> <ul style="list-style-type: none"> • A measurement of distance travelled (1) • A measurement of (initial and) final velocity (1) • Appropriate measuring equipment for both, e.g. metre rule, stop clock, light gates (1) • See $v^2 = u^2 + 2as$ (1) • Repeat and calculate mean (1) <p>OR</p> <ul style="list-style-type: none"> • A measurement of (initial and) final velocity (1) • A measurement of time taken (1) • Appropriate measuring equipment for both, e.g. stop clock, light gates (1) • See $a = (v - u)/t$ (1) • Repeat and calculate mean (1) <p>For MP4</p> <ul style="list-style-type: none"> - accept correctly re-arranged versions - accept gradient of a correctly described graph - accept versions of equations where $u = 0$ has already been included. <p>e.g. $s = \frac{1}{2}at^2$</p> <p>MP1-2 could be described for the falling mass, as acceleration is the same</p>	5
1 (b)(i)	<ul style="list-style-type: none"> • (0.98, 2.8) and (0.78, 2.4) plotted correctly (1) • Straight line of best fit with a positive y-axis intercept (1) Or curve of best fit (passing through origin) <div style="display: flex; justify-content: space-around;">   </div>	2
1 (b)(ii)	<ul style="list-style-type: none"> • (Straight) line of best fit does not pass through the origin, so the conclusion is correct Or line of best fit is a curve, so the conclusion is correct Or accept answer consistent with incorrectly drawn line in (b)(i) 	1
1(c)	<ul style="list-style-type: none"> • Masses removed from the hanger are placed on the glider Or masses removed from the glider are placed on the hanger 	1
Total for question 1		9