Name:_____

Small bottle
300 ml for 66p

Medium bottle
400 ml for 92p

Large bottle
500 ml for £1.25

(a) In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

Roland is going to buy some orange juice for a party.
Which size bottle of orange juice offers the best value for money?
You must show your working.   [3 + 2 OCW]

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(b) Galina needs to buy **exactly** 800 ml of orange juice.
Which is the best option for Galina?
You must show your working and consider all options.
You must give a reason for your choice.   [3]

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Well done – Full marks on a _Grade D_ challenge question

You dropped marks because:

Markscheme

GCSE Mathematics – Numeracy Unit 1: Intermediate Tier Autumn 2016	Mark	Comment
2(a) Method of comparison, e.g. per 100 ml or for 6000 ml, or divide the cost of 300 ml by 3 and multiply by 4 or 5, or similar	M1	Needs to show attempt to compare at least 2 of the 3
Correctly evaluated comparison for 2 of the 3 sizes	A1	Ignore incorrect units |	per 100 ml	per 6000 ml
300 ml	22 p	£13.20
400 ml	23 p	£13.80
500 ml	25 p	£15	
Correctly evaluated comparison for all sizes, may be different methods for different stages, AND conclusion '300 ml (small) bottle is best value for money'	A1	Consistent units that are not obviously incorrect are required, or allow no units given Comparison of small with large then medium with large is not a full comparison of all 3 Examples: Comparing small and medium at 1200 ml and then small and large at 1500 ml, possible M1, A1, A1 **Insufficient, 100 ml is 22p, so 500 ml is £1.10** (ignoring medium size bottle) so the small one is cheaper, possible M1 A1 A0, or sight of 2 small bottles is only 7p more than the big bottle for an extra 100 ml is likely to be M0 A0 A0
Organisation and communication	OC1	*Organisation and communication* For OC1, candidates will be expected to: • present their response in a structured way • explain to the reader what they are doing at each step of their response • lay out their explanations and working in a way that is clear and logical • write a conclusion that draws together their results and explains what their answer means
Accuracy of writing	W1	*Accuracy of writing* For W1, candidates will be expected to: • show all their working • make few, if any, errors in spelling, punctuation and grammar • use correct mathematical form in their working • use appropriate terminology, units need, etc.
2(b) 2 (medium) bottles of 400 ml for (£)1.84 or 184(p)	B1	Penalise incorrect units -1 only once Allow £1.84p
300ml (small) bottle and 500ml (large) bottle for (£)1.91 or 191(p)	B1	Allow £1.91p
Two 400ml (medium) bottles AND states 'cheaper'	B1	Depends on at least B1 previously awarded and both of these options have been considered Example: Costs per 100ml (22p, 23p & 25p) are used leading to comparison of 800ml as 176p, **184p** and 200p or equivalent, with smallest selected as the best option, is B1, B0, B0