



3.12D Best Buy Questions: Fluency and Exam Drill

EDEXCEL Edexcel 1MA1 · Calculator allowed · about 50 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Which is the better buy: 3 apples for 90p or 5 apples for £1.40? Work out the cheaper price per apple.

(Total for Question 1 is 1 mark)

- 2** Which is cheaper per litre: a 750 ml bottle for £1.20 or a 1.5 litre bottle for £2.50? Give the cheaper option and the price per litre.

(Total for Question 2 is 1 mark)

- 3** A 600 g bag of cereal costs £1.50. Work out the cost per 100 g.

(Total for Question 3 is 1 mark)

- 4** A chocolate bar is sold singly for 95p or as 4 bars for £3.20. Which is the better buy by unit price? Show your working.

(Total for Question 4 is 2 marks)

- 5** Which is better value per kg: a 2 kg bag of flour for £2.40 or a 500 g pack for 72p? Work out the cost per kg for both.

(Total for Question 5 is 2 marks)

- 6** A 1.2 kg bag of sugar costs £3.60. Work out the cost of 300 g of sugar.

(Total for Question 6 is 2 marks)

- 7** Compare three jars of jam and state which is best value per 100 g.
Small: 340 g for £1.65. Medium: 500 g for £2.40. Large: 1 kg for £4.25. Work out the price per 100 g for each and give the best value.

(Total for Question 7 is 3 marks)

- 8** A store sells pens at £3.20 each. Offer A is "buy one get one half price". Offer B is "3 for £5". Which offer gives the lowest price per pen? Show working.

(Total for Question 8 is 2 marks)

- 9** Show that the cheapest way to buy at least 2.5 litres of paint is to buy one 2 litre tin and one 750 ml pot.
750 ml pot costs £4.50. 2 litre tin costs £11.00. You must show costs for feasible combinations that reach at least 2.5 litres.

(Total for Question 9 is 3 marks)

- 10** A 750 g packet of couscous costs £2.10. Work out the cost of 1.5 kg of couscous.

(Total for Question 10 is 2 marks)

- 11** A pack of 6 toilet rolls costs £2.40. A pack of 12 costs £4.56. Which pack is better value per roll? Show your working.

(Total for Question 11 is 2 marks)

- 12** A chocolate costs £1.20 each. You can buy a pack of 5 for £5.00 or take a "3 for 2" offer in the shop. Which way is cheapest if you need 9 bars? Show working.

(Total for Question 12 is 3 marks)

- 13** A 2.25 kg bag of rice costs £4.95. Work out the cost per 100 g. Give your answer in pence.

(Total for Question 13 is 2 marks)

- 14** You need to fill a 40 litre petrol tank. Station A sells petrol at £1.349 per litre. Station B sells petrol at £1.329 per litre. How much would you save by filling at Station B instead of Station A? Give your answer to the nearest penny.

(Total for Question 14 is 2 marks)

- 15** An item normally costs £9.60 each.
Offer A: 3 for £25.00.
Offer B: Buy 2 get the 3rd half price.
Which offer gives the lower price per item, and by how much per item? Show working and give the saving per item in pence, to the nearest whole penny.

(Total for Question 15 is 4 marks)

- 16** Shampoo is sold in a 250 ml bottle for £3.60 and a 500 ml bottle for £6.40. Which bottle is better value per 100 ml? Show working.

(Total for Question 16 is 2 marks)

- 17** Compare three coffee options and state the cheapest per 100 g and how much cheaper per 100 g it is than the most expensive option.
A: 200 g jar £2.40. B: 500 g jar £5.70. C: 1 kg bag £10.80.
Work out per 100 g prices and the difference between best and worst.

(Total for Question 17 is 3 marks)

- 18** A shop sells small packets of biscuits as 5 for £6.75. Work out the cost of 8 packets.

(Total for Question 18 is 2 marks)

Mark scheme · 3.12D Best Buy Questions: Fluency and Exam Drill

Question 1

- **B1** Identify 5 for £1.40 is better value, $140\text{p}/5 = 28\text{p}$ each cao
- **Answer: 5 for £1.40 (28p each). 3 for 90p is 30p each, 5 for £1.40 is 28p each (better). 28p cao**

Question 2

- **B1** 750 ml bottle cheaper, $120\text{p}/0.75 = 160\text{p}$ per litre cao
- **Answer: 750 ml bottle, 160p per litre (cheaper than 166.67p per litre for 1.5 L).**

Question 3

- **B1** 25p per 100 g cao
- **Answer: 25p per 100 g ($150\text{p}/600\text{g} = 0.25\text{p}$ per g, so 25p per 100 g).**

Question 4

- **M1** Calculate unit prices: 95p for single, $320\text{p}/4 = 80\text{p}$ each
- **A1** State 4 for £3.20 is better value, 80p each cao
- **Answer: 4 for £3.20 is better value; 80p each rather than 95p each.**

Question 5

- **M1** Calculate 2 kg bag: $240\text{p}/2 = 120\text{p}$ per kg; 500 g pack: $72\text{p}/0.5 = 144\text{p}$ per kg
- **A1** 2 kg bag is better value, 120p per kg cao
- **Answer: 2 kg bag is better value: 120p per kg vs 144p per kg for the 500 g pack.**

Question 6

- **M1** Scale: $300/1200$ of £3.60 or $360\text{p} * 300/1200$
- **A1** 90p cao
- **Answer: 90p ($360\text{p} * 300/1200 = 90\text{p}$).**

Question 7

- **M1** Calculate two unit prices, e.g. small $165\text{p}/340 * 100 = 48.53\text{p}$, medium $240\text{p}/500 * 100 = 48\text{p}$
- **M1** Calculate large: $425\text{p}/1000 * 100 = 42.5\text{p}$
- **A1** Large jar is best value, 42.5p per 100 g cao
- **Answer: Small approx 48.53p per 100 g, Medium = 48p per 100 g, Large = 42.5p per 100 g. Best value = Large, 42.5p per 100 g.**

Question 8

- **M1** Compute effective price: BOGOHalf two pens cost $3.20 + 1.60 = 4.80$ so 2.40 each; 3 for £5 gives £1.666... each
- **A1** 3 for £5 is cheaper, about £1.67 each cao
- **Answer: 3 for £5 is cheaper: effective price approx £1.67 per pen (BOGOHalf is £2.40 each).**

Question 9

- **dM1** Calculate cost of 4 x 750 ml = $4 * £4.50 = £18.00$ cso
- **dM1** Calculate cost of 1 x 2 L + 1 x 750 ml = $£11.00 + £4.50 = £15.50$ cso
- **A1** Conclude cheapest is 2 L + 750 ml = £15.50 cao
- **Answer: 1 x 2 L + 1 x 750 ml costs £15.50 and gives 2.75 L. Alternative 4 x 750 ml costs £18.00 (3.0 L). Therefore the cheapest way to get at least 2.5 L is 2 L + 750 ml costing £15.50.**

Question 10

- **M1** Recognise 1.5 kg is 2 times 750 g and multiply: $2.10 * 2$
- **A1** £4.20 cao
- **Answer: £4.20 ($2 * £2.10$).**

Question 11

- **M1** Calculate unit prices: $240\text{p}/6 = 40\text{p}$; $456\text{p}/12 = 38\text{p}$
- **A1** 12 pack is better value, 38p per roll cao
- **Answer: 12 pack is better value: 38p per roll (6 pack is 40p per roll).**

Question 12

- **M1** Compute cost as singles: $9 * £1.20 = £10.80$ or as two 5-packs = £10.00
- **M1** Compute cost with 3 for 2: for 9 bars pay for 6 $\rightarrow 6 * £1.20 = £7.20$
- **A1** 3 for 2 is cheapest, £7.20 cao
- **Answer: 3 for 2 is cheapest: cost = £7.20 (pay for 6 bars). Singles cost £10.80, two 5-packs cost £10.00.**

Question 13

- **M1** Calculate $495\text{p} / 2250 \text{ g} * 100$ to find per 100 g
- **A1** 22p per 100 g cao
- **Answer: 22p per 100 g ($495\text{p} / 2250 * 100 = 22\text{p}$).**

Question 14

- **M1** Calculate difference per litre: $1.349 - 1.329 = 0.020$
- **A1** Saving = $0.020 * 40 = £0.80$ cao
- **Answer: £0.80 saved (2.0 pence per litre $\times$ 40 litres = £0.80).**

Question 15

- **M1** Calculate Offer A unit price: $£25/3 = £8.333...$ per item
- **M1** Calculate Offer B unit price: for 3 items cost = $9.60 + 9.60 + 4.80 = £24 \rightarrow £8.00$ per item
- **A1** State Offer B is cheaper cao
- **A1** State saving per item approx $£0.333... \rightarrow 33\text{p}$ per item (awrt 33p) cao
- **Answer: Offer B is cheaper. Offer A = £8.333... per item, Offer B = £8.00 per item. Saving approx £0.333... = 33p per item (to nearest penny).**

Question 16

- **M1** Calculate per 100 ml: 250 ml bottle = $360\text{p}/250*100 = 144\text{p}$; 500 ml bottle = $640\text{p}/500*100 = 128\text{p}$
- **A1** 500 ml bottle is better value, 128p per 100 ml cao
- **Answer: 500 ml bottle is better value: 128p per 100 ml (250 ml bottle is 144p per 100 ml).**

Question 17

- **M1** Calculate unit prices: $A = 240\text{p}/200*100 = 120\text{p}$; $B = 570\text{p}/500*100 = 114\text{p}$; $C = 1080\text{p}/1000*100 = 108\text{p}$
- **M1** Identify cheapest = C at 108p per 100 g
- **A1** State difference worst - best = $120\text{p} - 108\text{p} = 12\text{p}$ cao
- **Answer: Per 100 g: A = 120p, B = 114p, C = 108p. Cheapest is C (108p per 100 g). It is 12p per 100 g cheaper than the worst (A).**

Question 18

- **M1** Find unit price: $£6.75/5 = £1.35$ and multiply by 8
- **A1** £10.80 cao
- **Answer: £10.80 (unit price $£1.35 \times 8 = £10.80$).**