Comparing choices, risks and consequences

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. A 15-dollar bottle can be used twelve times with free refills. Single-use bottles cost 2 dollars each. How much is saved by choosing the reusable bottle for twelve uses? [2 marks]

$12\times2=24$; $24-15=9$.

Answer: 9 dollars.

2. An item costs 24 dollars online plus 6 dollars delivery. A local shop charges 29 dollars with no extra fee. Which total is lower? [2 marks]

Online total $24+6=30$; local total 29.

Answer: The local shop, by 1 dollar.

3. A class has 45 dollars and a planned total of 39 dollars. A possible extra fee is 8 dollars. Would the budget still fit if it is charged? [2 marks]

$39+8=47$; $47-45=2$.

Answer: No; the revised total is 47 dollars, 2 dollars over budget.

4. You need eight notebooks. Packs of four cost 6 dollars; packs of ten cost 13 dollars. Compare the lowest cost of each suitable purchase. [2 marks]

$2\times6=12$; $13-12=1$.

Answer: Two packs of four cost 12 dollars, which is 1 dollar less than a pack of ten.

5. A stall expects income of 70 dollars and costs of 46 dollars. If income is 10 dollars lower, what surplus remains? [2 marks]

Revised income 60; $60-46=14$.

Answer: 14 dollars.

6. Two school bags cost 30 and 35 dollars. No information about durability is given. Can you conclude that the 35-dollar bag will last longer? Explain. [2 marks]

More information is needed; it is valid to compare the prices but not invent a lifetime difference.

Answer: No. The prices alone do not establish durability.