Ethical/sustainable choices

6 questions | 15 marks

Equivalent correct methods earn the corresponding marks.

1. A reusable bag costs 6 dollars and lasts for six trips. Single-use bags cost 2 dollars per trip. Compare purchase totals for six trips. [2 marks]

$6 \times 2 = 12$.

$12 - 6 = 6$.

Answer: Reusable: 6 dollars; single-use: 12 dollars. The reusable bag costs 6 dollars less.

2. A chair repair costs 15 dollars. A replacement costs 42 dollars. Find the cost difference. [2 marks]

$42 - 15 = 27$.

Answer: 27 dollars

3. A refill costs 5 dollars. A new bottle costs 8 dollars. Compare 4 refills with 4 new bottles, assuming a refill bottle is already owned. [3 marks]

Refills: $4 \times 5 = 20$.

New bottles: $4 \times 8 = 32$.

$32 - 20 = 12$.

Answer: The refills cost 12 dollars less.

4. For a 30-dollar budget, compare the options and give a reason for choosing either. [3 marks]

Suitable class supplies

Option	Cost (dollars)	Packaging pieces
A	24	10
B	27	2

Cost difference: $27 - 24 = 3$.

Packaging difference: $10 - 2 = 8$.

Explain which information matters to the choice.

Answer: Both fit. A costs 3 dollars less; B makes 8 fewer packaging pieces. Either choice is valid with a stated priority.

5. A lunch box costs 10 dollars and lasts for 20 lunches. Disposable containers cost 1 dollar per lunch. Compare purchase costs for 20 lunches. [2 marks]

$20 \times 1 = 20$.

$20 - 10 = 10$.

Assume the lunch box works for all 20 lunches.

Answer: Lunch box: 10 dollars; disposable: 20 dollars. Difference: 10 dollars.

6. A shop says a 16-dollar item is more sustainable than a 12-dollar item because it costs more. Is this enough evidence? Give one useful question. [3 marks]

Price alone does not measure sustainability.

For example: How long will each item last?

Accept another relevant evidence-based question.

Answer: No. Ask about useful life, repair, materials or packaging.