Personal loans and comparing borrowing with saving

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Loan balance AUD 5000, monthly rate 0.6%, month-end payment AUD 250. Find the new balance. [2 marks]

$5000 \times 1.006 - 250 = 4780.$

Answer: AUD 4,780.00

2. A AUD 10000 loan incurs 0.5% monthly interest. What is the interest in its first month? [2 marks]

$10000 \times 0.005 = 50.$

Answer: AUD 50.00

3. A AUD 10000 balance has 0.5% monthly interest and only AUD 40 repaid at month end. Does it fall? Find the new balance. [2 marks]

$\text{Interest} = 50.$

$10000 + 50 - 40 = 10010.$

Answer: No; it rises to AUD 10010.

4. Find the balance after 3 monthly periods on AUD 2000 at 1% per month with AUD 300 month-end payments. [2 marks]

$B_1 = 1720.$

$B_2 = 1437.20.$

$B_3 = 1437.20 \times 1.01 - 300 = 1151.572.$

Answer: AUD 1,151.57

5. Cash price AUD 2200. A loan requires 24 payments of AUD 102 plus AUD 50 fee. Find the extra cost. [2 marks]

$24 \times 102 + 50 = 2498.$

$2498 - 2200 = 298.$

Answer: AUD 298.00

6. A comparison assumes a constant loan rate and unchanged future cash price. Give two reasons its actual outcome could differ. [2 marks]

These variables are assumptions rather than guaranteed facts.

Answer: The loan rate could change; the future cash price could change.