Tax/inflation effects on returns

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. AUD 5000 earns 4% interest. Tax is 20% of the interest. Find tax and retained earnings. [2 marks]

Interest=200.

Tax=40;retained=160.

Answer: AUD 40 tax; AUD 160 retained

2. What after-tax rate results from 5% interest taxed at 30% of each interest credit? [2 marks]

0.05×0.70=0.035.

Answer: 3.5%

3. A balance grows 7% while prices rise 4%. Find the exact real growth rate to 3 decimal places. [2 marks]

Real factor=1.07/1.04.

Subtract 1 and express as a percentage.

Answer: 2.885%

4. AUD 6000 in one year has prices 2% higher. Express it in current-year purchasing power. [2 marks]

6000/1.02.

Answer: AUD 5,882.35

5. An investment grows 3% after tax while inflation is 5%. Is purchasing power higher or lower? Quantify to 3 decimal places. [2 marks]

Real rate=1.03/1.05−1<0.

Answer: Lower by 1.905%

6. Why does the formula not describe actual tax on every possible investment? [2 marks]

The problem supplies a simplified rule; the conclusion is limited to that model.

Answer: Tax rules differ across types of income, personal circumstances and timing.