Concept – Inflation

Inflation is a general increase in prices and fall in the purchasing value of money. Inflation rates change from year to year and are given as % p.a.

To perform calculations with inflation we use the same equation as we did for compound interest.

$$V_n = V_0 \left(1 + \frac{r}{100}\right)^n$$

Eg: In Bolivia, the inflation rate between 2005 and 2015 was 5.8% p.a. At the start of 2005, a loaf of bread cost Bs 6 (6 Bolivianos). What is the cost of a loaf of bread by the end of 2015?

Concept – Depreciation

Depreciation is a reduction in the value of an asset over time. There are many ways to calculate the depreciation of an asset but in this context, we will use the formula.

$$V_n = V_0 \left(1 - \frac{r}{100}\right)^n$$

Eg: The depreciation rate for privately owned cars is 25% p.a. If you purchased a new Hyundai i30 for $22 290 at the start of this year, How much value will it lose by the end of 2022?

How To – Use Finance Solver with Inflation or Depreciation

1. On a ▦ _____ page press _____ → _____ → _____

2. Leave Pmt =0 and PmtAt = END.

3. N = _____

4. I = _____

5. PV = _____ or FV = _____

6. CpY = PpY = _____

7. Move into the FV section and press [enter] .

Concept – Hire Purchase

One way to purchase expensive items is with a Hire - Purchase agreement. These agreements typically involve paying a deposit then instalments for a set amount of time.

Some calculations you may be asked to make include;

The total cost of the purchase: _____

The amount of interest paid: _____

The flat rate of interest: _____

The effective interest rate: _____

Eg: Benny really wants to buy a new Pixel 3 phone. He knows the phone retails for $1349 outright. He has found a hire purchase agreement in which after paying a $320 deposit he will make monthly payments of $78 for 3 years. Calculate the effective interest rate for this hire purchase agreement.

Concept	Practice Questions	Bound Reference	
Prepare for exam questions about inflation, depreciation and hire purchase agreements.	**Chapter 4 Review** **Entry: MC** 14, 15, 16, 17, 18 **SA** 6a **EA** 3 □ **Expected: MC** 14 - 22 **SA** 6 **EA** 3 & 4ab □ **Expected +: MC** 14 - 22 **SA** 6 **EA** 3 & 4 □	Concept □ How to □ Example(s) □	