Nominal & Effective Interest

Comparison

Comparison.2 The "shorter way"

Compare the nominal and effective interest rates for the following scenario

Principal: $50 000
Rate: 5% pa
Years: 4
Compounding: weekly

<u>Calculation of the effective interest rate</u>

$r_{eff} =?$

$r = 5\% \ pa \ (nominal \ rate)$

$n = 52 \ (weekly)$

$$r_{eff} = \left(\left(1 + \frac{r}{100n} \right)^n - 1 \right) \times 100$$

$$r_{eff} = \left(\left(1 + \frac{5}{100 \times 52} \right)^{52} - 1 \right) \times 100$$

$$r_{eff} = 5.12458 \ \% \ pa$$