

Present Value

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RES500 – Fundamentals of Quantities Analysis

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Module 3: Present Value

(a) I used to calculate Ordinary Annuity with an Excel formula bar =PV function that gives a total amount after a year and the previous year. I wasn't sure where is the PV table, and I used to compare from the link <https://www.cimaglobal.com/documents/student%20docs/2010%20syllabus%20docs/p1/p1-performance-operations-tables-2010-syllabus.pdf>

Present Value = $1/(1 + \text{interest rate per period})^{\text{number of the period}} \times \text{Future Value}$	PV Function Excel Formula	
$1/(1+.06)^1 \times 10000$	\$	(9,433.96)
$1/(1+.06)^2 \times 10000$	\$	(18,333.93)
$1/(1+.06)^3 \times 10000$	\$	(26,730.12)
$1/(1+.06)^4 \times 10000$	\$	(34,651.06)

PV of Ordinary Annuity with PV Table = 34651.05

(b) I manually typed the formula because the excel =PV function didn't give an accurate result. What is change results in its increased present value if start to payment "beginning of the year".

	Annually Calculated	
$1/(1+.06)^0 \times 10000$	\$	10,000.00
$1/(1+.06)^1 \times 10000$	\$	9,433.96
$1/(1+.06)^2 \times 10000$	\$	8,899.96
$1/(1+.06)^3 \times 10000$	\$	8,396.19
Total PV	\$	36,730.11

PV of Annuity = \$36,730

© What is the difference between the two values; PV table round the value excel using the correct number; that is why they are different.

PV of Ordinary Annuity with PV Excel function		(\$35,098.46)
PV Table Result	\$	35,095.00