

Annuity Problems via a Financial Calculator

Texas Instruments - BA II Plus:

TVM - Registers: (Time Value of Money)

- N number of payments (periods) n
- I/Y interest as a percent $100i$
- PMT payment amount per period (must be entered as a negative)
- PV present value of payments
($-PMT \times a_{\overline{n}|i}$ or $-PMT \times \ddot{a}_{\overline{n}|i}$)
- FV future value (accumulated value)
($-PMT \times s_{\overline{n}|i}$ or $-PMT \times \ddot{s}_{\overline{n}|i}$)

Annuity Immediate vs Annuity Due

- END - Annuity Immediate (payment at end)
- BGN - Annuity Due (payment at beginning of each period)

Check setting:

Press 2nd [BGN]

(shows whether set to END or BGN)

Change setting:

Press 2nd [set]

(switches to the other setting)

Clear TVM Registers

Press $\boxed{2^{nd}}$ $\boxed{CLR TVM}$

Enter Three of the Four Values Needed

Example: 20 \rightarrow Press N $n=20$
 1.5 \rightarrow Press I/Y $i=.015$
 -50 \rightarrow Press PMT \$50 payments

Solve for the Unknown Fourth Value

Example above (doing one of the following):

Press \boxed{CPT} \boxed{PV}

produces $50 a_{\overline{20}|.015}$ if set on END

(858.4319393 above example)

or produces $50 \ddot{a}_{\overline{20}|.015}$ if set on BGN

(871.3084183 above example)

or Press \boxed{CPT} \boxed{FV}

produces $50 s_{\overline{20}|.015}$ if set on END

(1,156.183355 above example)

or produces $50 \ddot{s}_{\overline{20}|.015}$ if set on BGN

(1,173.526105 above example)