

Example (i): Monthly payments (regular first period and irregular final payment)

Amount advanced (A) = \$5000. Regular payment (P) = \$230.

Final payment $\left(\begin{matrix} P \\ n \end{matrix}\right) = \280 . Number of payments (n) = 24.

Unit-period = 1 month. Unit-periods per year (w) = 12.

Advance, 1-10-78. First payment, 2-10-78.

From 1-10-78 through 2-10-78 = 1 unit-period. (t = 1; f = 0)

Annual percentage rate (I) = $wi = .1050 = 10.50\%$

Example (ii): Payments every 2 weeks (short first period and irregular final payment)

Amount advanced (A) = \$200. Regular payment (P) = \$9.50.

Final payment $\left(\begin{matrix} P \\ n \end{matrix}\right) = \30 . Number of payments (n) = 20.

Unit-period = 2 weeks. Unit-periods per year (w) = $52/2 = 26$.

Advance, 4-3-78. First payment, 4-11-78.

From 4-3-78 through 4-11-78 = 8 days. (t = 0; f = 8/14)

Annual percentage rate (I) = $wi = .1222 = 12.22\%$

(4) Single advance transaction, with an odd first payment, odd final payment, with or without an odd first period, and otherwise regular.
The general equation in paragraph (b)(8) of this section can be put in the following special form for this type of transaction:

$$A = \frac{1}{(1+fi)(1+i)^t} \left[\begin{matrix} P \\ 1 \end{matrix} + \frac{P \cdot a^{\frac{t-1}{n-2}}}{(1+i)} + \frac{P}{(1+i)^{n-1}} \right]$$

Example (i): Monthly payments (regular first period, irregular first payment, and irregular final payment)

Amount advanced (A) = \$5000. First payment $\left(\begin{matrix} P \\ 1 \end{matrix}\right) = \250 .

Regular payment (P) = \$230. Final payment $\left(\begin{matrix} P \\ n \end{matrix}\right) = \280 .

Number of payments (n) = 24. Unit-period = 1 month.

Unit-periods per year (w) = 12.

Advance, 1-10-78. First payment, 2-10-78.

From 1-10-78 through 2-10-78 = 1 unit-period. (t = 1; f = 0)

Annual percentage rate (I) = $wi = .1090 = 10.90\%$

Example (ii): Payments every two months (short first period, irregular first payment, and irregular final payment)

Amount advanced (A) = \$8000. First payment $\left(\begin{matrix} P \\ 1 \end{matrix}\right) = \449.36 .

Regular payment (P) = \$465. Final payment $\left(\begin{matrix} P \\ n \end{matrix}\right) = \200 .

Number of payments (n) = 20. Unit-period = 2 months.

Unit-periods per year (w) = $12/2 = 6$.

Advance, 1-10-78. First payment, 3-1-78.

From 2-1-78 through 3-1-78 = 1 month. From 1-10-78 through 2-1-78 = 22 days. (t = 0; f = 52/60)

Annual percentage rate (I) = $wi = .0730 = 7.30\%$