## ANNUAL PERCENTAGE RATE (APR) [PIRNOT 8.6]

TABLE OF FINANCE CHARGES PER \$100 (FCPH):

| NUMBER OF | APR |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PAYMENTS | $\mathbf{1 0} \%$ | $\mathbf{1 1} \%$ | $\mathbf{1 2} \%$ | $\mathbf{1 3} \%$ | $\mathbf{1 4} \%$ | $\mathbf{1 5} \%$ | $\mathbf{1 6} \%$ |
| $\mathbf{6}$ | $\$ 2.94$ | $\$ 3.23$ | $\$ 3.53$ | $\$ 3.83$ | $\$ 4.12$ | $\$ 4.42$ | $\$ 4.72$ |
| $\mathbf{1 2}$ | $\$ 5.50$ | $\$ 6.06$ | $\$ 6.62$ | $\$ 7.18$ | $\$ 7.74$ | $\$ 8.31$ | $\$ 8.88$ |
| $\mathbf{2 4}$ | $\$ 10.75$ | $\$ 11.86$ | $\$ 12.98$ | $\$ 14.10$ | $\$ 15.23$ | $\$ 16.37$ | $\$ 17.51$ |
| $\mathbf{3 6}$ | $\$ 16.16$ | $\$ 17.86$ | $\$ 19.57$ | $\$ 21.30$ | $\$ 23.04$ | $\$ 24.80$ | $\$ 26.57$ |
| $\mathbf{4 8}$ | $\$ 21.74$ | $\$ 24.06$ | $\$ 26.40$ | $\$ 28.77$ | $\$ 31.17$ | $\$ 33.59$ | $\$ 36.03$ |

EX 8.6.1: Anne pays a finance charge of $\$ 300$ on a 12 -month, $\$ 3500$ computer loan.
(a) Find the finance charge per $\$ 100$ financed.
(b) Find the APR using the above table.

EX 8.6.2: Nathan has agreed to pay off a $\$ 5000$ loan for remodeling his house by making 36 payments of $\$ 165$.
(a) Find the finance charge per $\$ 100$ financed.
(b) Find the APR using the above table.

EX 8.6.3: Alice took out a 48 -month, $\$ 6000$ add-on loan at an annual (simple) interest rate of $8 \%$ for a vacation trip.
(a) Find the APR using the above table.
(b) Estimate the APR using the formula: $\quad \mathrm{APR} \approx \frac{2 n r}{n+1}$

