Supporting the Work of the Parish

Read the scenario. Use the information on the chart to calculate (1) what amount will be in the "Quarters and Cans" account at the beginning of each month and (2) how much there will be in the account at the end of the year.

Tim's parish holds "Quarters and Cans" Sundays twelve times a year, or once a month. The money collected is put in an interest-bearing money-market account at the annual rate of 3.5% compounded monthly. At the end of the year, the parish gives the money to a charity.

Formula

A = P x (1 + r/n)
A = accumulated amount (final value of an investment)
P = principal (initial value of an investment)
r = annual interest rate (as a decimal)
n = number of times the interest is compounded per year

Here is how the accumulated amount for February was calculated using A = P x (1 + r/n)

425 x (1 + .035/12) =
425 x (1 + .002917) =
425 x (1.002917) =
426.24

Now add the amount collected in February to the new balance. The result gives you the amount in the account at the beginning of March: 349.25 + 426.24 = 775.49

Complete the rest of the chart using the compound interest formula and your calculator.

MONTH	Amount in Account At Beginning Of Month	New Balance Including Interest Compounded After One Month	Amount Collected, Then Deposited At End Of Month
January	$000.00	$000.00	$425.00
February	425.00	426.24	349.25
March	775.49		325.50
April			562.50
May			215.75
June			436.50
July			126.75
August			203.25
September			352.00
October			321.00
November			624.50
December			892.75

Final Amount $