Answer on Question #76584 – Math – Financial Math

Question

You deposit 500 in an account today and an additional amount X in one year. The account pays 3.5% annually. What amount X is required to have 2000 in the account at the end of three years?

Solution

First year, 500 dollars.
0.035*500
After one year, 500*1.035+x

At the end of two more years,
$(500*1.035+x)*1.035^2=2000;$
$x= 2000/1.035^2-500*1.035;$
x=1867.02-517.5=$1349.52.

Answer: $1349.52.