

## Chapter 7 / Example 7

# Using the finance app

- 1** Rafael invests BRL 5 000 (Brazilian real) in a bank offering 2.5% interest compounded annually.
  - a** Calculate the amount of money he has after five years.  
After the five years, Rafael withdraws all his money and puts it in another bank that offers 2.5% interest per annum compounded monthly.
  - b** Calculate the amount of money that he has in the bank after three more years.
- 2** Alexis invests RUB 80 000 (Russian rouble) in a bank that offers interest at 3% per annum compounded quarterly.
  - a** Calculate how much money Alexis has in the bank after six years.
  - b** Calculate how long it takes for his original amount of money to double.

Press **[APPS]** 1:Finance...

Press 1:TVM Solver...

```
N=0
I%=0
PV=0
PMT=0
FV=0
P/Y=1
C/Y=1
PMT:END BEGIN
```

```
N = 5
I% = 2.5
PV = -5000
PMT = 0
FV = 0
P/Y = 1
C/Y = 1
PMT:END
```

Move the cursor back to FV and press **[ALPHA]** **[ENTER]** **SOLVE** to get the answer.

FV = BRL 5 657.04

```
N=5
I%=2.5
PV=-5000
PMT=0
FV=5657.041064
P/Y=1
C/Y=1
PMT:END BEGIN
```

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N = 3  
 I% = 2.5  
 PV = -5657.04  
 PMT = 0  
 FV = 0  
 P/Y = 1  
 C/Y = 12  
 PMT:END

Move the cursor back to FV and press **[ALPHA]** **[ENTER]** **SOLVE** to get the answer.

FV = BRL 6 097.16

N=3  
 I%=2.5  
 PV=-5657.04  
 PMT=0  
 FV=6097.158058  
 P/Y=1  
 C/Y=12  
 PMT:END BEGIN

N = 6  
 I% = 3  
 PV = -80 000  
 PMT = 0  
 FV = 0  
 P/Y = 1  
 C/Y = 4  
 PMT:END

Move the cursor back to FV and press **[ALPHA]** **[ENTER]** **SOLVE** to get the answer.

FV = RUB 95 713.08

N=6  
 I%=3  
 PV=-80000  
 PMT=0  
 FV=95713.08235  
 P/Y=1  
 C/Y=4  
 PMT:END BEGIN

N = 0  
 I% = 3  
 PV = -80 000  
 PMT = 0  
 FV = 160 000  
 P/Y = 1  
 C/Y = 4

Move the cursor back to N and press **[ALPHA]** **[ENTER]** **SOLVE** to get the answer.

$n = 23.19$

So it would take 23 years for his money to double.

N=23.19144152  
 I%=3  
 PV=-80000  
 PMT=0  
 FV=160000  
 P/Y=1  
 C/Y=4  
 PMT:END BEGIN