

Chapter 10
Planning for Retirement

Section 10-1A

Retirement Income from Savings

Objective:
Calculate

Compare

There are different types of retirement accounts

- ❖ IRA – It is _____ and opened by an _____
- ❖ Roth IRA – Not _____. Withdrawals from the account are _____
- ❖ 401K – It is _____ and sponsored by an _____ for an employee
- ❖ 403b – _____

Future value of a periodic deposit investment:

$$B = \frac{P \left(\left(1 + \frac{r}{n} \right)^{nt} - 1 \right)}{\frac{r}{n}}$$

- B = future value
- P = periodic deposit amount
- r = annual interest rate (converted)
- n = number of times interest is compounded annually
- t = length of investment in years

Example 1

Blythe is 40 years old. She is planning on retiring in 25 years. She has opened an IRA with an APR of 1.25% compounded monthly. If she makes monthly deposits of \$500 to the account, how much will she have in the account when she is ready to retire?

- B =
- P =
- r =
- n =
- t =

Example 1 – Now You Try It!

Blythe's son Dan is 20 years old. He is planning on retiring in 45 years. He has opened an Investment IRA with an APR of 10.25% compounded monthly. If he wants to have saved \$175,000 by the time he retires, how much will he have to save monthly?

- B =
- P =
- r =
- n =
- t =

Over for example 2 --->

Example 2

Suppose that Blythe's annual contribution was pre-tax. How much did she save in taxes in one year if her taxable income for that year was \$72,500?

Step 1: Determine how much her taxes with the IRA were. (Use a table or worksheet)

Step 2: Determine how much was put in the tax deferred IRA account.

Tax Deferred Payments:

$$\text{Tax Deferred Payments} = \text{Amount} \times \# \text{ of Payments}$$

Step 3: Determine how much her taxable income without the IRA.

No IRA Taxable Income:

$$\begin{aligned} \text{No IRA Taxable Income} = & \text{Taxable income} \\ & + \text{Tax Deferred Payments} \end{aligned}$$

Step 4: Determine how much her taxes would have been without the IRA. (Use a table or worksheet)

Step 5: Find the tax savings

Tax Savings =

$$\text{Tax Savings} =$$

	No IRA	With IRA
Taxable Income		
Taxes		

Example 2 – Now You Try It!

Suppose Jacob invested 450 dollars in a pre-tax retirement account. His taxable income for the year was \$72,950 dollars. How much did he save in taxes in one year by saving pre-tax dollars?

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

	No IRA	With IRA
Taxable Income		
Taxes		

Assignment 10-1A

Read Pages 608 to 611

Do Page 614: # 2, 3, 5, 7-11

Note for Q#11: $x = \$3,000$, $t=28\%$