

Today's Learning Goal(s):

By the end of the class, I will be able to:

- a) Calculate the amount of an investment for a variety of compounding periods.

MCF 3MI

8.2 Compound Interest: Determining Future Value

$$A = P(1 + i)^n \quad \text{or} \quad FV = PV(1 + i)^n$$

Date: _____

Ex. 1: Compare investing \$1400 for 5 years in the following compound-interest accounts

OPTION A: 12%/a compounded annually

OPTION B: 12%/a compounded semi-annually

OPTION C: 12%/a compounded quarterly

OPTION A:

A=?
P=1400
i =

=
n =
=

OPTION B:

A=?
P=1400
i =

=
n =
=

OPTION C:

A=?
P=1400
i =

=
n =
=

NOTE:

The amount of an investment increases as the number of compounding periods increases.

Ex. 2: Compare investing \$825 for 4 years:

a) 7½ %/a compounded monthly.

b) 7½ %/a simple interest.

c) Determine the difference between these investments at the end of the 4th year.

a)

b)

c) Difference = compounded monthly - simple