Name: _____   Date: _____

Compound interest

Lengths of Time/Compounding Periods

- Annually

- Semi-Annually

- Quarterly

- Monthly

- Bi-Monthly

- Bi-Weekly

- Weekly

- Daily

Assignment   Finish This Handout   Quiz: Next Day!

- Can be calculated using the simple interest formula in a chart to show the value of the investment after each compounding period.

Example Calculate the value of an investment of $5000 that earns 2.35% per year, compounded **semi-annually**, for 4 years. Use a table to show the value of the investment at the end of each compounding period.

P =_____

r = _____ = _____

t = _____

INTEREST TABLE

Interest period	Investment value at the beginning of the period	Interest earned ($) $I = Prt$	Investment value at the end of the period

The value of the investment after 4 years is:

Assignment   Finish This Handout   Quiz: Next Day!

A	
P	
r	
t	

n		
	Annually	
	Semi-Annually	
	Quarterly	
	Monthly	
	Bi-Monthly	
	Bi-Weekly	
	Weekly	
	Daily	

Example What is the compounded amount if $5000 is deposited in an account for 2 years that pays 4.5% interest annually?

A	
P	
r	
t	
n	

Example Find the compounded amount if you were to put $400 in a bank account if the interest rate is 4.75% for 5 years and the interest is compounded weekly.

A	
P	
r	
t	
n	

Because the compounded amount, A, is made up of the principal and the interest earned,
$$A = P + I,$$
the amount of interest earned can be calculated by first calculating A, and then subtracting the original principal from that amount.

Example Margaret invested $2000 in an account with an interest rate of 8% for 3 years, compounded quarterly. How much interest does she earn?

A	
P	
I	
r	
t	
n	