Compound Interest Example 01

Principal	$ 200,000
Annual interest rate	12%

Date borrowed   January 1, 2006

Annual Compounding

Year	Principal	Annual interest rate	Interest expense		Cumluative interest	Principal + Cumulative interest
2006	$ 200,000	12%	$ 24,000	(*1)	$ 24,000	$ 224,000
2007	$ 200,000	12%	$ 26,880	(*2)	$ 50,880	$ 250,880
2008	$ 200,000	12%	$ 30,106	(*3)	$ 80,986	$ 280,986

(*1)	$200,000 x 12%
(*2)	($200,000 + $24,000) x 12%
(*3)	($200,000 + $24,000 + $26,880) x 12%

Semi-annual Compounding

Year	Principal	Annual interest rate	Interest expense		Cumluative interest	Principal + Cumulative interest
1/1-6/30, 2006	$ 200,000	6%	$ 12,000	(*4)	$ 12,000	$ 212,000
7/1-12/31, 2006	$ 200,000	6%	$ 12,720	(*5)	$ 24,720	$ 224,720
1/1-6/30, 2007	$ 200,000	6%	$ 13,483	(*6)	$ 38,203	$ 238,203
7/1-12/31, 2007	$ 200,000	6%	$ 14,292		$ 52,495	$ 252,495
1/1-6/30, 2008	$ 200,000	6%	$ 15,150		$ 67,645	$ 267,645
7/1-12/31, 2008	$ 200,000	6%	$ 16,059		$ 83,704	$ 283,704

(*4)	$200,000 x 6%
(*5)	($200,000 + $12,000) x 6%
(*6)	($200,000 + $12,000 + $12,720) x 6%

Quarterly Compounding

Year	Principal	Annual interest rate	Interest expense		Cumluative interest	Principal + Cumulative interest
Q1, 2006	$ 200,000	3%	$ 6,000	(*7)	$ 6,000	$ 206,000
Q2, 2006	$ 200,000	3%	$ 6,180	(*8)	$ 12,180	$ 212,180
Q3, 2006	$ 200,000	3%	$ 6,365	(*9)	$ 18,545	$ 218,545
Q4, 2006	$ 200,000	3%	$ 6,556		$ 25,102	$ 225,102
Q1, 2007	$ 200,000	3%	$ 6,753		$ 31,855	$ 231,855
Q2, 2007	$ 200,000	3%	$ 6,956		$ 38,810	$ 238,810
Q3, 2007	$ 200,000	3%	$ 7,164		$ 45,975	$ 245,975
Q4, 2007	$ 200,000	3%	$ 7,379		$ 53,354	$ 253,354
Q1, 2008	$ 200,000	3%	$ 7,601		$ 60,955	$ 260,955
Q2, 2008	$ 200,000	3%	$ 7,829		$ 68,783	$ 268,783
Q3, 2008	$ 200,000	3%	$ 8,063		$ 76,847	$ 276,847
Q4, 2008	$ 200,000	3%	$ 8,305		$ 85,152	$ 285,152

(*7)	$200,000 x 3%
(*8)	($200,000 + $6,000) x 3%
(*9)	($200,000 + $6,000 + $6,180) x 3%