

## Interest Calculations Example 1a

Principal	\$ 200,000
Annual interest rate	10%
<b>Date borrowed</b>	<b>April 1, 2006</b>

### Simple interest method

Year	Principal	Annual interest rate	No. of months	Interest expense		Cumulative interest	Principal + Cumulative interest
2006	\$ 200,000	10%	9	\$ 15,000	(*1)	\$ 15,000	\$ 215,000
2007	\$ 200,000	10%	12	\$ 20,000	(*2)	\$ 35,000	\$ 235,000
2008	\$ 200,000	10%	12	\$ 20,000	(*2)	\$ 55,000	\$ 255,000
2009	\$ 200,000	10%	12	\$ 20,000	(*2)	\$ 75,000	\$ 275,000
2010	\$ 200,000	10%	12	\$ 20,000	(*2)	\$ 95,000	\$ 295,000

(\*1)  $\$200,000 \times 10\% \times (9/12) = \$15,000$

(\*2)  $\$200,000 \times 10\% \times (12/12) = \$20,000$

### Compound interest method

Year	Principal	Annual interest rate	No. of months	Interest expense		Cumulative interest	Principal + Cumulative interest
2006	\$ 200,000	10%	9	\$ 15,000	(*3)	\$ 15,000	\$ 215,000
2007	\$ 200,000	10%	12	\$ 21,500	(*4)	\$ 36,500	\$ 236,500
2008	\$ 200,000	10%	12	\$ 23,650	(*5)	\$ 60,150	\$ 260,150
2009	\$ 200,000	10%	12	\$ 26,015	(*6)	\$ 86,165	\$ 286,165
2010	\$ 200,000	10%	12	\$ 28,617	(*7)	\$ 114,782	\$ 314,782

(\*3)  $\$200,000 \times 10\% \times (9/12) = \$15,000$

(\*4)  $(\$200,000 + \$15,000) \times 10\% \times (12/12) = \$21,500$

(\*5)  $(\$200,000 + \$15,000 + \$21,500) \times 10\% \times (12/12) = \$23,650$

(\*6)  $(\$200,000 + \$15,000 + \$21,500 + \$23,650) \times 10\% \times (12/12) = \$26,015$

(\*7)  $(\$200,000 + \$15,000 + \$21,500 + \$23,650 + 26,015) \times 10\% \times (12/12) = \$28,617$