

Compound Interest

- 1) Calculate the amount of compound interest paid on \$3700 at the end of 3 years for each rate.
 - a) 15% compounded semi-annually
 - b) 8% compounded quarterly
 - c) 2.6% compounded weekly
 - d) 0.67% compounded daily
- 2) Which investment is better?
Investment A: 6% compounded semi-annually
Investment B: 4.5% compounded quarterly
- 3) Jenny deposited \$300 in an account that paid 12% interest compounded semi-annually. If she leaves it there for 6 years, how much will she have?
- 4) A loan of \$5000, at 12% compounded monthly is due to be repaid in 3 years. How much needs to be repaid?
- 5) Brett and Steven's grandparents gave them each \$10000 to use when they go to college in 6 years. Brett invested his in a GIC that paid 2.25% compounded quarterly, while Steven invested his in a GIC that paid 1.75% compounded monthly. Who made more money? How much more?
- 6) Wayne bought a computer and owes \$3000 to the computer store. They charge 7% and compound it quarterly. His payment is due in full in 3 years.
 - a. How much will he owe them in 3 years?
 - b. How much will he owe them if he pays it off in 1 year instead?
 - c. How much will he have saved?
- 7) Jamal's is getting a raise! 2.75% each year for the next 4 years. His current salary is \$35500 per year. What will his salary be in 4 years?

Solutions

- 1) a) \$2 010.22 b) \$992.49 c) \$300.08 d) \$75.12
- 2) Investment A (In one year, \$1 000 grows to \$1 060.90 where in B it only grows to \$1 045.70
- 3) \$603.66
- 4) \$7 153.84
- 5) Steven (\$13 693.18) made \$2 253.14 more than Brett (\$11 441.04)
- 6) a. \$3 698.78 b. \$3 216.87 c. \$481.91
- 7) \$39 569.05