

Worksheet: Simple and Compound Interest**Part A:**

- Joe has some money to invest. He buys a 2 year term investment that pays simple interest at 3.35%/a. Calculate the interest earned on a \$50 000 investment.
- Mary invested \$1200 for 2 years in a mutual fund that paid 3.6% interest per year with interest compounded annually.
 - Determine the final amount of Mary's investment.
 - Calculate the total interest that Mary earned on her investment.
- Mark borrows \$3000 at an interest rate of 4.75% per annum compounded monthly. How much will he owe in 5 years?
- Diana invests \$10 000 in a GIC with an interest rate of 3.4%/a compounded semi-annually. If she is in grade 9 today how much will she have when she graduates ? (Assume 3.5 years until graduation.)

Part A Answers: 1. \$3350 2. a) \$1287.96 b) \$87.96 3. \$3802.44 4. \$11 252.44

Part B:

- \$300 is invested for 2.5 years at 6% simple interest. How much interest is earned?
- Joe borrowed \$500 from his parents to buy an I-pod. They charged him 2.5% simple interest. He paid them back in 14 months. How much interest did he pay them? How much did he pay them in total?
- Peter invested in a GIC that paid 3.25% simple interest. In 36 months, he earned \$485. How much did he invest originally?
- What rate of simple interest is needed for \$700 to double, in 3 years?
- Kadeem's investment matured from \$1300 to \$1750. It was invested at a simple interest rate of 4.25%. How long was it invested for?
- \$4500 was invested at a $5\frac{3}{8}\%$ simple interest for 300 days. How much interest was earned? What was the total amount of the investment?
- \$600 is invested at 4% simple interest for 2 years.
 - How much interest is earned?
 - If the interest rate is doubled to 8% is the interest earned doubled?
 - If the time was doubled to 4 years, would the interest earned be doubled?

Part B Answers: 1. \$45 2. \$14.58 ; 514.58 3. \$4974.36 4. $33\frac{1}{3}\%/a$
 5. 8 years, 53 days 6. \$4698.80 7. a) \$48 b) yes c) yes