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| --- | --- | --- |
| Name:  Class: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  SCORE:  / 36    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | **Year 12 Essential Mathematics Unit 2**  **Test 8 2019**  **Topic – Interest**  ***Full working out MUST be shown to get full marks for each question.*** | |
| **Total Time:** | 40 minutes |  |
| **Weighting:** | 5% |
| **Equipment:** | To be provided by the student: Pen, pencil, ruler, scientific calculator, 1 single sided page of A4 notes | |

1. If I invest $3,000 at 5% p.a. simple interest for 3 years, how much interest will I earn?

(2 marks)

1. If I invest $15,000 at 3.5% p.a. simple interest for 30 months, how much interest will I earn and how much will my total investment be worth in total at the end of the term?

(4 marks)

1. If I invested $1500 for 5 years earning 6% p.a. interest compounded annually. How much will I have at the end of the term?

(2 marks)

1. If I invested $500 for 2 years earning 3.25% p.a. interest compounded every 6 months. How much will I have at the end of the term?

(3 marks)

1. Tina earned $4000 over the summer school holidays. She invested it for 3 years at 5.5% p.a. compounded annually.

(2 + 2 + 1 + 4 = 9 marks)

* + 1. How much interest will she earn in the first year?
    2. How much will be in the account at the end of the 3 years?
    3. How much interest will she earn over the 3 years?
    4. How much more money would Tina have if she had invested in an account that compounded the interest monthly?

1. Nicole borrowed $1800 from a finance company for 2 years at 19% p.a. simple interest. She decides to pay this monthly over the two years. How much will she repay every month?

(4 marks)

1. Simone takes out a home loan for $360 000 with an interest rate of 4.55% compounded monthly. She makes monthly repayments of $1600. Use this information to complete the table below, showing all your working out in the table.

(12 marks)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Month** | **Starting Balance** | **Interest** | **Repayment** | **End of month balance** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |

END OF ASSESSMENT