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| Name:  Class: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  SCORE:  / 22    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | **Year 12 Essential Mathematics Unit 2**  **Mini Test 8 2018**  **Topic – Interest**  ***Full working out MUST be shown to get full marks for each question.*** | |
| **Total Time:** | 30 minutes |  |
| **Weighting:** | 5% |
| **Equipment:** | To be provided by the student: Pen, pencil, ruler, scientific calculator, 1 single sided page of A4 notes | |

1. **Find the simple interest on the following amounts [2 + 2 = 4 Marks]**
2. *$4500 at 10% for 5 years*
3. *12,000 at 7.5% for 2.5 years*
4. **Find the missing variable in the following equations: [2 + 2 + 2 = 6 Marks]**
5. *Sam earned $55 simple interest at 2% for 5 years, how much was the principle amount?*
6. *Shaun earned $1485 from a principle of $4500 across 3 years. What was the simple interest rate?*
7. *Shauna earned $675 on a principle of $1,500 at 7.5% simple interest across some years. What was the number of years?*
8. **Madeline invests in a compound interest fund at 8.5%, compounding once per year, for 15 years. She puts $8,000 in as principle. What is the value of the account after 15 years? [ 3 Marks]**
9. **Madeline finds another account with the same interest rate, but compounds twice per year. She puts another $8000 in for 15 years. [ 3 + 1 = 4 marks]**
   1. *How much does she make after 15 years?*
   2. *Comparing your answer with question 3, which account is better.*
10. **Alex buys a work ute for $55,990 that she depreciates once a year for 5 years at 11%.**

**[2 + 3 = 5 marks]**

* 1. *How much would Alex lose after one year?*
  2. *How much would she lose after the 5 years?*

*END OF ASSESSMENT*