****

**TASK 2**

NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ATAR CHEMISTRY UNITS 1 & 2 SCIENCE INQUIRY 1 QUIZ (B)**

TOTAL 20 marks

1. Explain, using examples 2 thigs a scientist could do to reduce the effect of random errors. (4 marks)

2. Explain, using examples 2 thigs a scientist could do to reduce the effect of systematic errors. (4 marks)

Calibrate equipment  
 Ensure measurements are taken with care

2 State the number of significant figures for each of the following: (2 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **No. of Sig Figs** | **Number** | **No. of Sig Figs** |
| 0.0056000100 |  | 0.000564564 |  |
| 7.15 × 106 |  | 8.00000 |  |

3 Perform the following calculations and express your answer with the correct number of significant figures. (4 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Operation** | **Answer** | **Operation** | **Answer** |
| 7.1043 × 6.2 |  | 1.44028934 ÷ 62.0 |  |
| 8.90371 - 2.53 |  | 1027 + 0.24019 |  |

4 Express the following numbers using scientific notation (2 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Operation** | **Answer** | **Operation** | **Answer** |
| 130000.0 |  | 210 × 102 |  |
| 0.00531 |  | 400 × 10-4 |  |

5 Perform the following calculations and express your answer with the correct number of significant figures. (4 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Operation** | **Answer** | **Operation** | **Answer** |
| 7.2 x 0.392 |  |  |  |
|  |  |  |  |