|  |  |
| --- | --- |
| Name | Serial # |
| Section#: | ID#: |

**Lab 1 – Significant Figures**

Exercise 1

Diameter of the disk (in mm) =

Height of the disk (in mm) =

Uncertainty in the measurements (in mm) =

Exercise 2

Diameter of the disk (in mm) =

Height of the disk (in mm) =

Uncertainty in the measurements (in mm) =

Exercise 3

Mass of the disk from Balance #1 (in kg) =

Uncertainty in the measurements (in kg) =

Mass of the disk from Balance #2 (in kg) =

Mass of the disk from Balance #3 (in kg) =

Reason for the difference?

Exercise 4

Reading uncertainty (in s) =

|  |  |
| --- | --- |
| # | T(s) |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| Average |  |
| Standard deviation |  |

T= ± (s)

Exercise 5

|  |  |  |
| --- | --- | --- |
| Measurement | Decimal Places | Significant Figures |
| 13 |  |  |
| 13.20 |  |  |
| 3.0800 |  |  |
| 0.00418 |  |  |
| 3.200 × 109 |  |  |
| 780.000 |  |  |
| 0.00800 |  |  |
| 7.09 × 10−5 |  |  |
| 91 |  |  |
| 600 |  |  |
| 250. |  |  |
| 0.0101 |  |  |

Exercise 6

|  |  |
| --- | --- |
| To four significant figures: | |
| 2.16347 × 105 |  |
| 4.000574 × 106 |  |
| 3.682417 |  |
| 7.2518 |  |
| 375.6523 |  |
| 21.860051 |  |
| To two significant figures: | |
| 3.512 |  |
| 198 |  |
| 40.523 |  |
| 2.751 × 108 |  |
| 3.9814 × 105 |  |
| 22.494 |  |

|  |  |
| --- | --- |
| To one decimal place: | |
| 3.64 |  |
| 4.55 |  |
| 0.0865 |  |
| 100.0925 |  |
| 0.005 |  |
| 79.2588 |  |
| 0.9114 |  |
| 0.2056 |  |

|  |  |
| --- | --- |
| To nearest 0.01: | |
| 6.675 |  |
| 0.03062 |  |
| 4.500 |  |
| 2.473 |  |
| 7.555 |  |

|  |  |
| --- | --- |
| To the nearest whole number: | |
| 56.912 |  |
| 3.4125 |  |
| 251.7817 |  |
| 112.511 |  |
| 63.541 |  |

Exercise 7

