**Lab 1 – Chapter 1**

**Task #1:** Pay.java pseudocode

Display “How many hours did you work?”

Input hours.

Display “How much are you paid per hour?”

Input rate.

Check if hours <= 40

If so then pay is hours times rate

If higher then pay is base payment + overtime hours times 1.5 times the rate

Display the value in the pay variable.

**Task #2:** check output

|  |  |  |  |
| --- | --- | --- | --- |
| Hours | Rate | Pay (hand calculated) | Pay (program result) |
| 35 | 15 | 525 | 525.0 |
| 40 | 15 | 600 | 600.0 |
| 45 | 15 | 712.5 | 712.5 |

**Task #3:** debugging

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Price | Tax | Total (calculated) | Total (output) |
| Lotion | 6 | 0.33 | 6.33 | 6.33 |
| Laptop | 1200 | 66 | 1266 | 1266.0 |

**Lab 1 – Chapter 2**

**Task #4:** using predefined math functions

|  |  |  |
| --- | --- | --- |
| Diameter | Volume (hand calculated) | Volume (output) |
| 2 | 4.188790205 | 4.1887902047863905 |
| 25.4 | 8580.246646 | 8580.24664605096 |
| 875,000 | 3.507702735e17 | 3.5077027349651661E17 |

**Task #5:** program from scratch

|  |  |  |  |
| --- | --- | --- | --- |
| Miles driven | Gallons used | Mpg (calculated) | Mpg (output) |
| 2000 | 100 | 20 | 20.0 |
| 500 | 25.5 | 19.6078431372549019 | 19.607843137254903 |
| 241.5 | 10 | 24.15 | 24.15 |
| 100 | 0 | undefined | Infinity |