Name:_____

11:00-11:50 a.m. Student Identification Number:_____

For this quiz, you are to print the Output that MATHEMATICA gives you for various Input Statements. As the first Input statement, write your Student Identification Number as a decimal without dashes or spaces and set **id** equal to it. Thus, if your Student Identification Number were 123-45-6789, your first Input and Output would look like

```
id = 123456789.
```

1.23456789×10^8

Problem 1. After each of the following four Input statements, print the Output that *Mathematica* yields.

```
f[x_] = x^3 - 9 x^2 + 19 x - (id)^(1 / 7)
```

```
sol = NSolve[ f'[x] == 0, x ]
```

```
critPoints = x /. sol
```

```
{ f[ critPoints ],  f''[ critPoints] }
```

Problem 2. After each of the following two Input statements, print the Output that *Mathematica* yields.

```
Integrate[ (id)^(1 / 6) * E^x * Cos[2 x] * Cosh[3 x], x]
```

```
Apart[ (id)^(1 / 5) * (x^5) / ( (x^2 + 1)^2 * (x^2 + x + 1)^2 ) ]
```
