Name: _____   UCID: _____

Worksheet 0x10

Suppose that loading an integer, adding two integers, and comparing two integers each take 1 clock cycle of work. For each of the following code snippets, estimate the clock cycles required to complete the computation. Assume that no optimizations are enabled on the compiler.

1. Snippet 1:

```
if (a+b < c)
{
        d = e+f;
}
else
{
        g = h+i;
}
```

2. Snippet 2:

```
if (a+b < c)
{
        d = e+f;
}
else
{
        g = a+e; // notice this line
}
```

3. Snippet 3:

```
a = 50;
c = 100;
for (int b = 0; b < c; b++) // notice the loop
{
        if (a+b < c)
        {
                d += e[b]+f[b];
        }
        else
        {
                g += h[b]+i[b];
        }
}
```