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CME220 - Homework 2

Part 1

```
a=[1,0,-0.996;0,0.99,0;0,0.01,-0.004]
```

```
a = 3×3
    1.0000         0   -0.9960
         0    0.9900         0
         0    0.0100   -0.0040
```

```
b=[0.196;0.8;0.004]
```

```
b = 3×1
    0.1960
    0.8000
    0.0040
```

```
detrm=det(a);
c=inv(a);
d=c*b;
fprintf('Stream 1: 1.000 L')
```

```
Stream 1: 1.000 L
```

```
fprintf('Stream 2: %.3f L\n',d(3))
```

```
Stream 2: 1.020 L
```

```
fprintf('Stream 3: %.3f L \n',d(2))
```

```
Stream 3: 0.808 L
```

```
fprintf('Stream 4: %.3f L \n',d(1))
```

```
Stream 4: 1.212 L
```

Part 2

```
e=[1,0.9;0,0.1]
```

```
e = 2×2
    1.0000    0.9000
         0    0.1000
```

```
f=[96;4]
```

```
f = 2×1
    96
     4
```

```
detrm2=det(e);
g=inv(e);
```

```
h=g*f;
fprintf('mtops: %.0f lbm\n',h(1))
```

```
mtops: 60 lbm
```

```
fprintf('mbottoms: %.0f lbm \n',h(2))
```

```
mbottoms: 40 lbm
```