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```
v = 4096;  
tau = 1;  
t = linspace(0,tau, v);
```

```
f = exp(t);  
g = t;
```

```
fFour = ifft(f);  
gFour = ifft(g);
```

Part A

equal to $\tau * a_0$

```
partA = tau * fFour(1);
```

Part B

equal to summation of abs value of every a_k

```
partB = sum(abs(fFour) .^ 2);
```

Part C

equal to summation of $a_k * b_k_{conjugate}$

```
gFourConj = conj(gFour);  
partC = sum(fFour .* gFourConj);
```

Solutions

```
fprintf("a) %f + %fi\n", real(partA), imag(partA));  
fprintf("b) %f + %fi\n", real(partB), imag(partB));  
fprintf("c) %f + %fi\n", real(partC), imag(partC));
```

```
a) 1.718316 + 0.000000i  
b) 3.194772 + 0.000000i  
c) 1.000088 + -0.000000i
```

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