```
[1 2 3 2]
Enter sequence 2
[1 2 1]
8 6 8 10
8 6 8 10
Convolution property verified
```

OBSERVATION

```
Enter the first sequence x1[n]:
[1 2 1]
Enter the second sequence x2[n]:
[1 1 1]
Enter the constant a:
2
Enter the constant b:
3
DFT of the linear combination of the input sequences:
 Columns 1 through 2
 17.0000 + 0.0000i -1.0000 - 1.7321i
 Column 3
 -1.0000 + 1.7321i
Linear combination of the DFTs of the individual sequences:
 Columns 1 through 2
 17.0000 + 0.0000i -1.0000 - 1.7321i
 Column 3
 -1.0000 + 1.7321i
The linearity property of DFT is verified
```

OBSERVATION

```
Enter the first sequence x:
[1 2 3 4]
Enter the second sequence h:
[1 1 0]
Time Domain:
 Columns 1 through 3
 3.0000 + 0.0000i 1.0000 - 2.0000i -1.0000 + 0.0000i
 Column 4
 1.0000 + 2.0000i
Frequency domain:
 Columns 1 through 3
 3.0000 + 0.0000i 1.0000 - 2.0000i -1.0000 + 0.0000i
 Column 4
 1.0000 + 2.0000i
Multiplication property of DFT is verified!
```

OBSERVATION

Enter sequence 1
[1 9 2 8]
Enter sequence 2
[1 4 5 0]
47
47
Parseval theorem verified