

OUTPUTS

CHALLENGE 01:

BRUTE FORCE APPROACH:

```
D:\SZ-2025\NED\logic forge f  X + v
8 3 2
73 74 75 71 69 72 76 73
NEXT 3
6
COUT 0 7

-----
Process exited after 28.62 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED APPROACH:

```
3 4 5
73 74 75 71 69 72 76 73

-----
Process exited after 15.74 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 02:

BRUTE FORCE APPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
3 4 5
78 76 75
NEXT 8
Minimum boats = 3

-----
Process exited after 12.67 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED APPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
3 4 5
78 76 74
NEXT 5
Minimum boats = 3

-----
Process exited after 10.61 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 03:

BRUTE FORCE AAPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
3 9 2
S 1 2
S 1 3
B 2 5
B 3 9
F 1
2 1
U 1 2
B 3 6
F 1
3 2
F 2
1

-----
Process exited after 4.011 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED APPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
3 9 2
S 1 2
S 1 3
B 2 5
B 3 9
F 1
2 1
2 1
U 1 2
B 3 6

-----
Process exited after 10.03 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 04:

BRUTE FORCE AAPPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
cbaebabacd
abc
[0, 6]

-----
Process exited after 13.52 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED APPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
cbaebabacd
abc
[0, 6]

-----
Process exited after 4.022 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 05:

BRUTE FORCE AAPPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
babad
bab

-----
Process exited after 1.479 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED APPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
babad
bab

-----
Process exited after 13.71 seconds with return value 0
Press any key to continue . . . |
```

CHALLENGE 06:

BRUTE FORCE AAPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
6
2 1 2 5 3 2
2

-----
Process exited after 13.09 seconds with return value 0
Press any key to continue . . . |
```

OPTIMIZED APPROACH:

```
D:\SZ-2025\NED\logic forge f X + v
6
2 1 2 5 3 2
2

-----
Process exited after 13.09 seconds with return value 0
Press any key to continue . . . |
```