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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot 121
Calculated square root : 11.000000
System library square root : 11.000000
Error : 0.000000
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot 1234567 5
Calculated square root : 19311.417181
System library square root : 1111.110706
Error : 18200.306475
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot 1234567 10
Calculated square root : 1168.235521
System library square root : 1111.110706
Error : 57.124815
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot 1234567 15
Calculated square root : 1111.110706
System library square root : 1111.110706
Error : 0.000000
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot 0
Calculated square root : 0.000000
System library square root : 0.000000
Error : 0.000000
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot 1
Calculated square root : 1.000000
System library square root : 1.000000
Error : 0.000000
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin SquareRoot -1
Calculated square root : NaN
System library square root : NaN
Error : NaN
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master
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▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin FractionAdder
Enter the numerator and denominator [integer integer] of the first fraction : 2 10
Enter the numerator and denominator [integer integer] of the second fraction : 3 15

(1 / 5) + (1 / 5) = (2 / 5)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin FractionAdder
Enter the numerator and denominator [integer integer] of the first fraction : -2 7
Enter the numerator and denominator [integer integer] of the second fraction : -3 -8

(-2 / 7) + (3 / 8) = (5 / 56)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin FractionAdder
Enter the numerator and denominator [integer integer] of the first fraction : 0 21
Enter the numerator and denominator [integer integer] of the second fraction : 56 -7

(0) + (-8) = (-8)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin FractionAdder
Enter the numerator and denominator [integer integer] of the first fraction : 1 0
Invalid fraction - division by zero!
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master
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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin ContinuedFraction 42 73
[0; 1, 1, 2, 1, 4, 2]
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin ContinuedFraction 1 2
[0; 2]
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin ContinuedFraction 5 10
[0; 2]
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin ContinuedFraction 355 113
[3; 7, 16]
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin ContinuedFraction 1 0
Invalid fraction - division by zero!
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master java -cp ./bin ContinuedFraction
Enter 2 arguments! ([numerator] [denominator])
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI  master
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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 0
1
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 1
10
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 2
45
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 3
120
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 10
1
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 9
10
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 8
45
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 100 2
4950
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 1000 2
499500
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial 10 11
Invalid 'k'! (0 <= k <= n)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Binomial
Enter 2 arguments! ([+integer] [+integer])
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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin PalindromeGenerator 135
135 + 531 = 666
666 is a palindrome (1 step)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin PalindromeGenerator 963
963 + 369 = 1332
1332 + 2331 = 3663
3663 is a palindrome (2 steps)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin PalindromeGenerator 10797
10797 + 79701 = 90498
90498 + 89409 = 179907
179907 + 709971 = 889878
889878 + 878988 = 1768866
1768866 + 6688671 = 8457537
8457537 + 7357548 = 15815085
15815085 + 58051851 = 73866936
73866936 + 63966837 = 137833773
137833773 + 377338731 = 515172504
515172504 + 405271515 = 920444019
920444019 + 910444029 = 1830888048
1830888048 + 8408880381 = 10239768429
10239768429 + 92486793201 = 102726561630
102726561630 + 36165627201 = 138892188831
138892188831 + 138881298831 = 277773487662
277773487662 + 266784377772 = 544557865434
544557865434 + 434568755445 = 979126620879
979126620879 + 978026621979 = 1957153242858
1957153242858 + 8582423517591 = 10539576760449
10539576760449 + 94406767593501 = 104946344353950
104946344353950 + 59353443649401 = 164299788003351
164299788003351 + 153300887992461 = 317600675995812
317600675995812 + 218599576006713 = 536200252002525
536200252002525 + 525200252002635 = 1061400504005160
1061400504005160 + 615004050041601 = 1676404554046761
1676404554046761 is a palindrome (25 steps)
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▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Factorize 1
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Factorize 10
2 5
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin Factorize 12345
3 5 823
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -Xss2M -cp ./bin Factorize 1234567
127 9721
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -Xss16M -cp ./bin Factorize 1234567879
20399 60521
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master
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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
satvik@Satviks-MacBook-Air > ~/src/github/sahasatvik/Computer-Project/XI master cat phonetic_alphabet
A Alpha
B Bravo
C Charlie
D Delta
E Echo
F Foxtrot
G Golf
H Hotel
I India
J Juliet
K Kilo
L Lima
M Mike
N November
O Oscar
P Papa
Q Quebec
R Romeo
S Sierra
T Tango
U Uniform
V Victor
W Whiskey
X X-ray
Y Yankee
Z Zulu
satvik@Satviks-MacBook-Air > ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin TextEncoder phonetic_alphabet
Enter a sentence to encode : C O M P U T E R
Encoded sentence : Charlie Oscar Mike Papa Uniform Tango Echo Romeo
satvik@Satviks-MacBook-Air > ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin TextEncoder phonetic_alphabet
Enter a sentence to encode : a l p h a b e t
Encoded sentence : Alpha Lima Papa Hotel Alpha Bravo Echo Tango
satvik@Satviks-MacBook-Air > ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin TextEncoder
Enter 1 argument ([codebook filename])
satvik@Satviks-MacBook-Air > ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin TextEncoder phonetic
Codebook not found! Enter a valid filename.
satvik@Satviks-MacBook-Air > ~/src/github/sahasatvik/Computer-Project/XI master
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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master java -cp ./bin AnalyseCharacterFrequency project.tex report
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master cat report
e : 14.78% ( 292)
t : 7.80% ( 154)
o : 7.49% ( 148)
r : 6.38% ( 126)
c : 6.33% ( 125)
n : 5.92% ( 117)
a : 5.87% ( 116)
l : 5.42% ( 107)
i : 5.37% ( 106)
d : 4.30% ( 85)
s : 4.20% ( 83)
u : 4.00% ( 79)
p : 3.65% ( 72)
m : 3.54% ( 70)
g : 2.89% ( 57)
b : 2.18% ( 43)
x : 2.00% ( 41)
f : 1.92% ( 38)
h : 1.82% ( 36)
y : 1.16% ( 23)
k : 1.11% ( 22)
q : 0.56% ( 11)
v : 0.51% ( 10)
w : 0.41% ( 8)
z : 0.20% ( 4)
j : 0.10% ( 2)
Total Letters : 1975
Unused Letters : (none)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master
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satvik@Satviks-MacBook-Air: ~/src/github/sahasatvik/Computer-Project/XI (zsh)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master • java -cp ./bin AnalyseCharacterFrequency report report
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master cat report
e : 12.73% ( 7)
t : 12.73% ( 7)
l : 7.27% ( 4)
n : 7.27% ( 4)
s : 7.27% ( 4)
o : 5.45% ( 3)
r : 5.45% ( 3)
u : 5.45% ( 3)
a : 3.64% ( 2)
d : 3.64% ( 2)
b : 1.82% ( 1)
c : 1.82% ( 1)
f : 1.82% ( 1)
g : 1.82% ( 1)
h : 1.82% ( 1)
i : 1.82% ( 1)
j : 1.82% ( 1)
k : 1.82% ( 1)
m : 1.82% ( 1)
p : 1.82% ( 1)
q : 1.82% ( 1)
v : 1.82% ( 1)
w : 1.82% ( 1)
x : 1.82% ( 1)
y : 1.82% ( 1)
z : 1.82% ( 1)
Total Letters : 55
Unused Letters : (none)
▶ satvik@Satviks-MacBook-Air ~/src/github/sahasatvik/Computer-Project/XI master
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