$_{r}emainder_{t}heorem.cppDiscreteLogMath/discrete_{l}og.cppLucasMath/Lucas.cppMeissel-LehmerPIMath/MeisselLe$
$_{m}atchingFlow/KM_{m}atching.cppMatchingFlow/Matching.cpp$
$_{p}lane_{i}ntersection.cpppolyUnionGeometry/polyUnion.cpp$
$_{c}liques.cppTarjanSCCGraph/Tarjan_{S}CC.cppCentroidDecompositionGraph/CentroidDecomposition.cppMinMeanC$
$_{a}utomaton.cppGusfield(Z-algorithm)String/gusfield.cppKMPString/kmp.cppManacherString/manacher.cppSuf$
A
i
b
$A = i+\frac{b}{2}-1$

$V-$
$E+$
$F =$
2
$E-$
$V+$
$n+$
$E \leq$
$3V-$
6
G
$I(G)$
$M(G)$
$Cv(G)$
$Ce(G)$
$I(G)+$
$Cv(G) =$
$|V|$
$M(G)+$
$Ce(G) =$
$|V|$
$I(G) =$
$Cv(G)$
$M(G) =$
$Ce(G)$
$_{b}ack(i);$
$g(m) =$
$\sum_{d|m} f(d) \Leftrightarrow$
$f(m) =$
$\sum_{d|m} \mu(d)\times$
$g(m/d)$
$\phi(x), \mu(x)$
$\sum_{i=1}^{n}\sum_{j=1}^{m}[\gcd(i,j) =$
$1] =$
$\sum_{d}\mu(d)\lfloor\frac{n}{d}\rfloor\lfloor\frac{m}{d}\rfloor$
$\sum_{i=1}^{n}\sum_{j=1}^{n} lcm(i,j) =$
$n\sum_{d|n} d\times$
$\phi(d)$
$Harmonicseries H_n =$
$\ln(n)+$
$\gamma+$
$1/(2n)-$
$1/(12n^2)+$
$1/(120n^4)$
$\gamma \approx$
$0.57721566490153286060651209008240243104215$
$n\oplus$
$(n >>$
$1)$
$\frac{C_n^{kn}}{n(k-1)+1} C_m^n =$
$\frac{n!}{m!(n-m)!}$
$\gamma(n+$
$1) =$
$n!$
$H(n,m) \cong$
x_1+
$x_2 \ldots+$
$x_n =$
$k, num =$
C_{n+k-1}^{k}
$n! \approx$
$\sqrt{2\pi n}\left(\frac{n}{e}\right)^n$
2^{nd}
nk
$S(0,0) =$
$S(n,n) =$
1
$S(n,0) =$
0
$S(n,k) =$
$kS(n-$
$1,k)+$
$S(n-$
$1,k-$
$1)$