A
i
b
$A = i + \frac{b}{2} - 1$

$V -$
$E +$
$F =$
2
$E =$
$E -$
$V +$
$n +$
1
$E \leq$
$3V -$
6
G
$I(G)$
$M(G)$
$Cv(G)$
$Ce(G)$
$I(G) +$
$Cv(G) =$
$|V|$
$M(G) +$
$Ce(G) =$
$|V|$
$I(G) =$
$Cv(G)$
$M(G) =$
$Ce(G)$
${}_b ack(i);$
$g(m) =$
$\sum_{d|m} f(d) \Leftrightarrow$
$f(m) =$
$\sum_{d|m} \mu(d) \times$
$g(m/d)$
$\phi(x), \mu(x)$
$\sum_{i=1}^{n} \sum_{j=1}^{m} [\gcd(i, j) =$
$1] =$
$\sum_{d} \mu(d) \left\lfloor \frac{n}{nd} \right\rfloor \left\lfloor \frac{m}{d} \right\rfloor$
$\sum_{i=1}^{n} \sum_{j=1}^{n} lcm(i, j) =$
$n \sum_{d|n} d \times$
$\phi(d)$
$Harmonic series H_n =$
$\ln(n) +$
$\gamma +$
$1/(2n) -$
$1/(12n^2) +$
$1/(120n^4)$
$\gamma =$
$0.57721566490153286060651209008240243104215$
$n \oplus$
$(n >>$
$1)$
$\frac{C_n^{kn}}{n(k-1)+1} C_m^n =$
$\frac{\frac{n!}{m!(n-m)!}}{}$
$\gamma(n +$
$1) =$
$n!$
$H(n, m) \cong$
$x_1 +$
$x_2 \ldots +$
$x_n =$
$k, num =$
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
$S(n, k) =$
$kS(n -$
$1, k) +$
$S(n -$
$1, k -$
$1)$
n
$B_0 =$
1
$B_n =$
$\sum_{i=0}^{n} S(n, i)$
$B_{n+1} =$
$\sum_{k=0}^{n} C_k^n B_k$