

$$\begin{array}{l} (1) \quad p=x^2+y^2 \\ \quad p\equiv \\ \quad 1(mod4) \\ \quad p^0\equiv \\ \quad 3(mod4) \end{array}$$

$$(2) \quad p|(p-1)!+1$$

$$(3) \quad \phi(n)/n=n/log(n)$$

$$(4) \quad \sum L_1=1$$

$$(5) \quad \sum L_n=F_{n-1}+F_{n+1}$$

$$(6) \quad T(p_i,p_j)si|p_i-p_j|=2$$

$$(7) \quad a^{\phi(m)}\equiv 1(modm)$$

$$(8) \quad \phi(ab)=\phi(a)*\phi(b)*\frac{d}{\phi(d)}$$

$$(9) \quad a^2-b^2|8$$

$$(10) \quad n/(n-1)/(n-2).../1=\frac{n^2}{n!}$$

$$(11) \quad n(n^2-1)(3n+2)|24$$

$$(12) \quad \sum i^2=\frac{n(n+1)(2n+1)}{6}$$

$$(13) \quad \sum x^i=\frac{x^n-1}{x-1}$$

$$(14) \quad \sum x^3=(\sum x)^2$$

$$(15) \quad 1*2+2*3+3*4+4*5...=\frac{n(n+1)(n+2)}{3}$$

$$(16) \quad \sum F_i=F_{(n+2)-1}$$

$$(17) \quad a=n^2-m^2$$

$$(18) \quad b=2mn$$

$$(19) \quad c=m^2+n^2$$