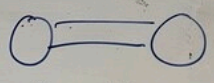
gerichtet: $(u,v) \neq (v,u)$

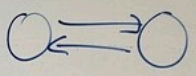
$u \longrightarrow v \quad v \longrightarrow u$

ungerichtet: $\{u,v\} = \{v,u\}$

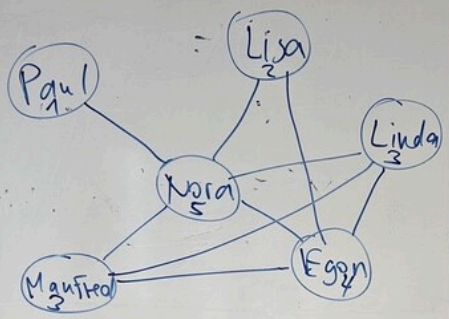
$u \longrightarrow v$



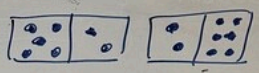
„Doppelkante"



1.1



1.2



symm. Steine: 7

asymm. Steine: $6+5+4+3+2+1 = \sum_{i=1}^{6} i = \frac{6 \cdot 7}{2} = 21$

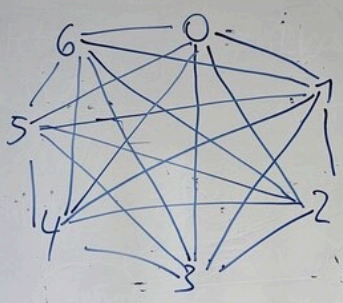
Gesamt: $7+21=28$

$n=7: \; f(n) = n + \frac{n \cdot (n-1)}{2}$

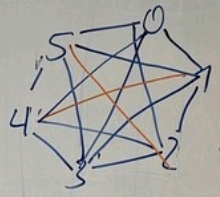
$= \frac{2n + n \cdot (n-1)}{2}$

$= \frac{(2+(n-1)) \cdot n}{2} = \frac{(n+1) \cdot n}{2}$

$7+6+\ldots+1 = \frac{7 \cdot 8}{2} = 28$

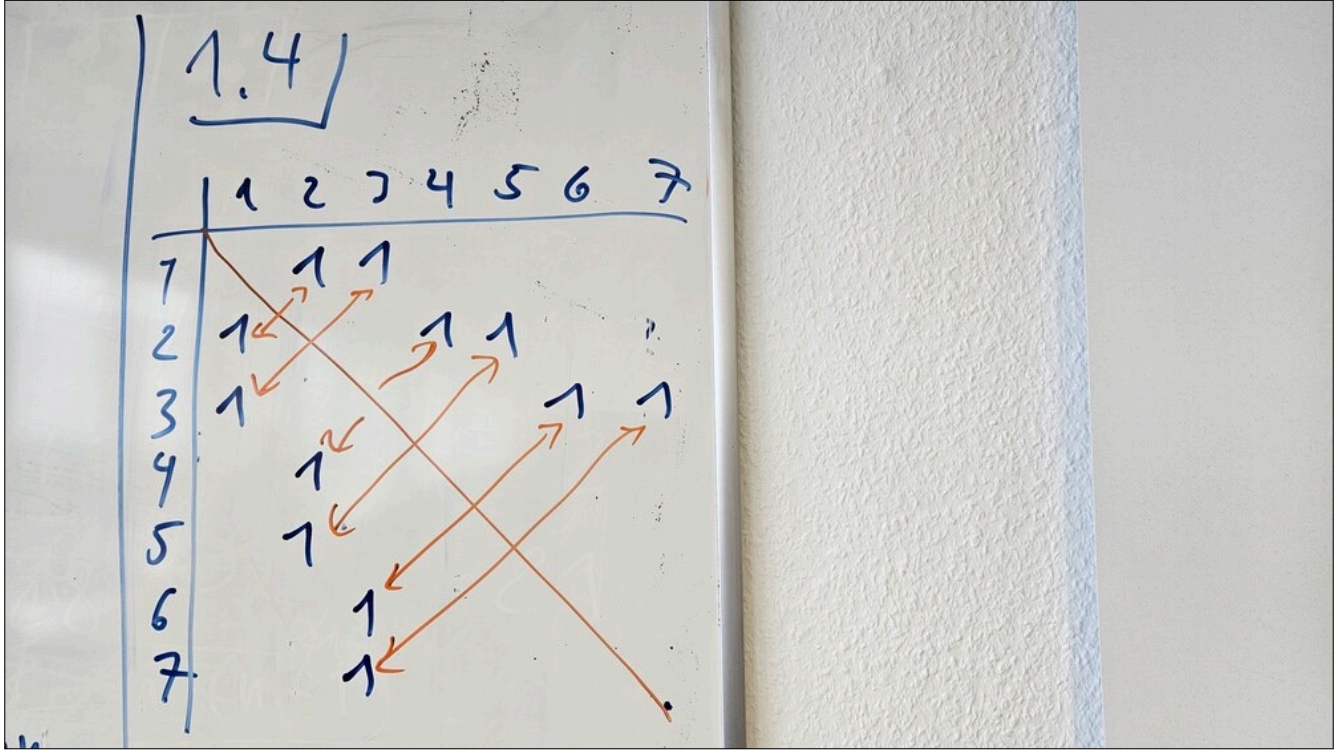


Bei 0..5



Ungerade # Knoten $\Rightarrow$ Gerade # Kanten an jedem Knoten

$\Rightarrow$ Kreis = vollst. Graph geht


1.4
1 2 3 4 5 6 7
1
2
3
4
5
6
7