Modellierung 14.1.15

Notiztitel 14.01.2015

Partielle Ordnung

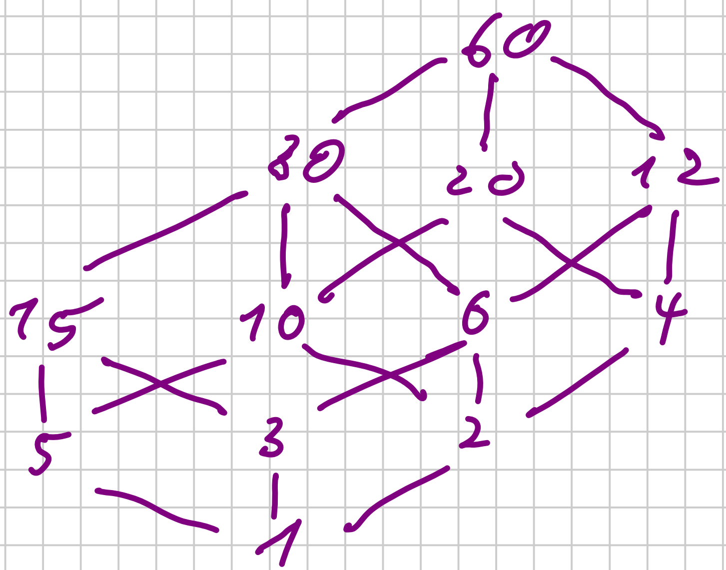
Beispiel: Teiler-Beziehung $x | y$ $\quad X = \mathbb{N} \quad R \subseteq \mathbb{N} \times \mathbb{N}$

Reflexivität: $x | x$ ✓

Transitivität: $x | y,\ y | z \Rightarrow x | z$ ✓

Antisymmetrie: $x | y,\ y | x \Rightarrow x = y$ ✓

Hasse-Diagramm



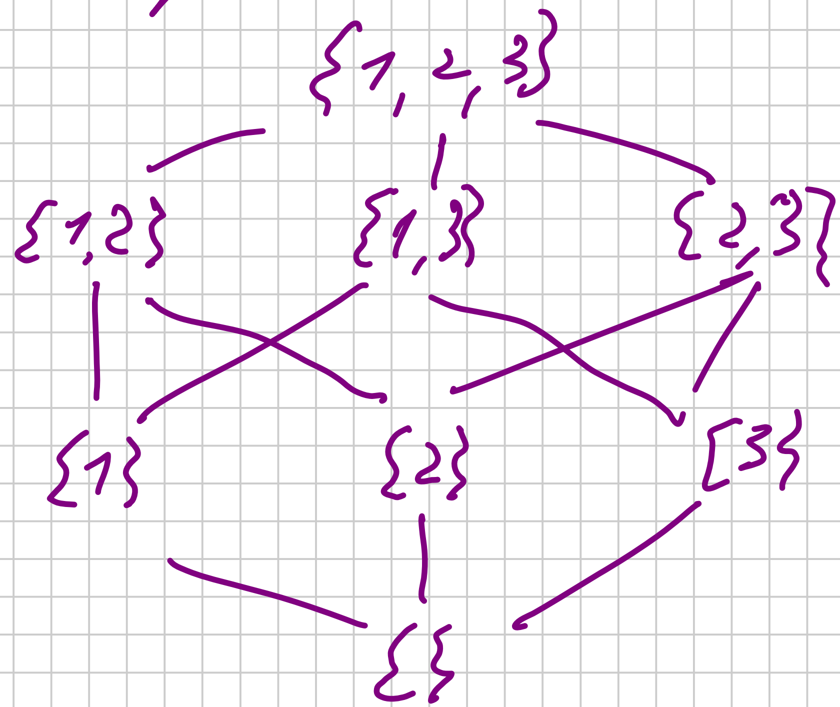
Partielle Ordnung: Beispiel Teilmengenbez. $\subseteq$

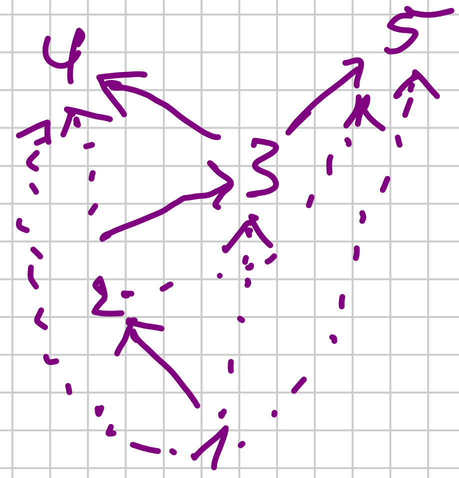
Reflexivität: $x \subseteq x$ ✓

Transitivität: $x \subseteq y,\ y \subseteq z \Rightarrow x \subseteq z$ ✓

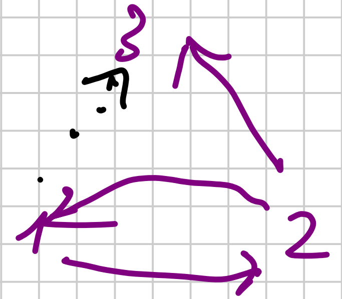
Antisymmetrie: $x \subseteq y,\ y \subseteq x \Rightarrow x = y$ ✓

Hasse-Diagramm:





$R^* = \{(1,2),(2,3),(3,4),(3,5)\} \cup$
$\{(1,1),(2,2),(3,3),(4,4),(5,5)\} \cup$
$\{(1,3),(1,4),(1,5),(2,4),(2,5)\}$



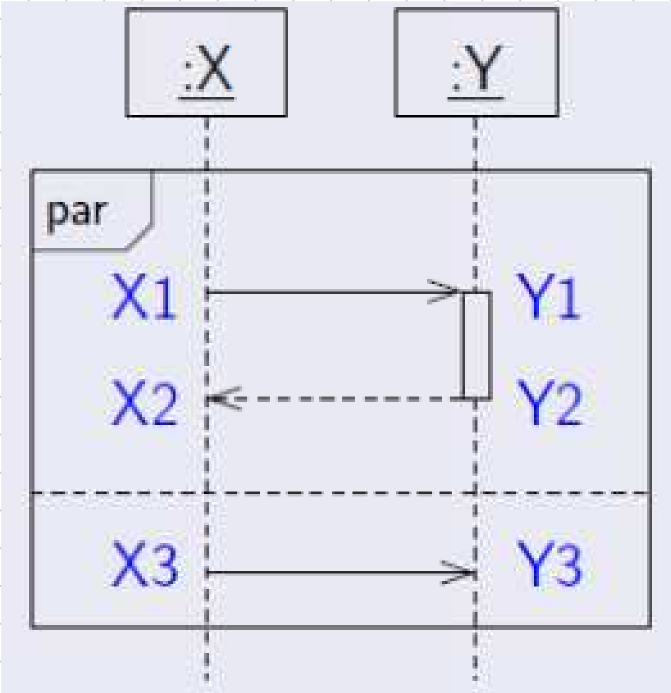
$R = \{(1,2),(2,1),(2,3)\}$

$R^* = R \cup \{(1,3)\}$

Antisymmetrie?

$(1,2) \in R \land (2,1) \in R \not\Rightarrow (1=2)$

$\Rightarrow$ nicht antisymmetrisch



Ordnung auf den Ereign.:

$x1 < y1 < y2 < x2$

$x3 < y3$

möglicheAbläufe:

x1, y1, x3, y3, y2, x2

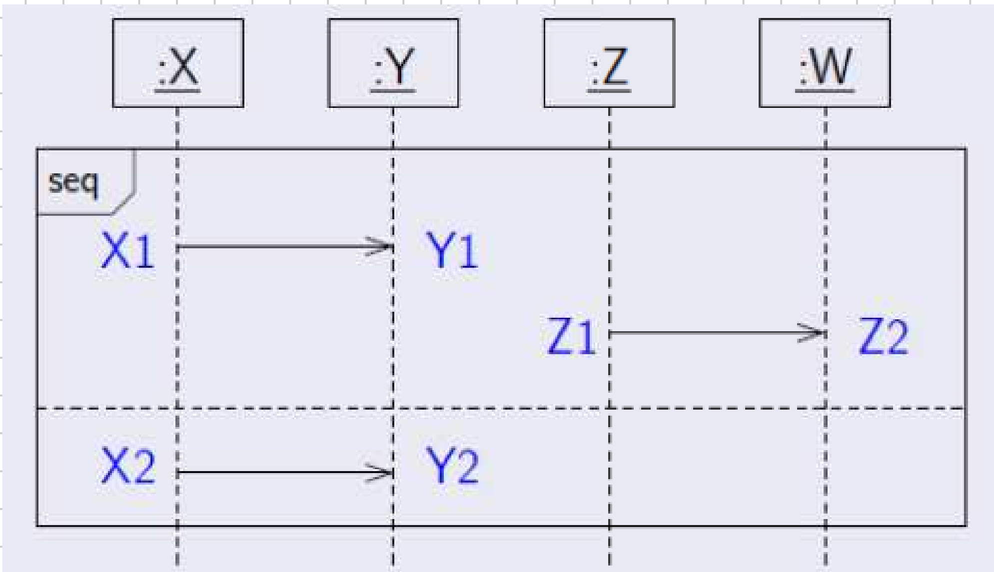
x1, x3, y3, y1, y2, x2

x3, x1, y1, y2, x2, y3

....

$R_1 = \{(x1, y1), (y1, y2), (y2, x2)\}$ $R_2 = \{(x3, y3)\}$

$R_{par} = R_1 \cup R_2$



Ordnung!

$X1 < Y1 < Z1 < Z2$

$X2 < Y2$

$X1 < X2$

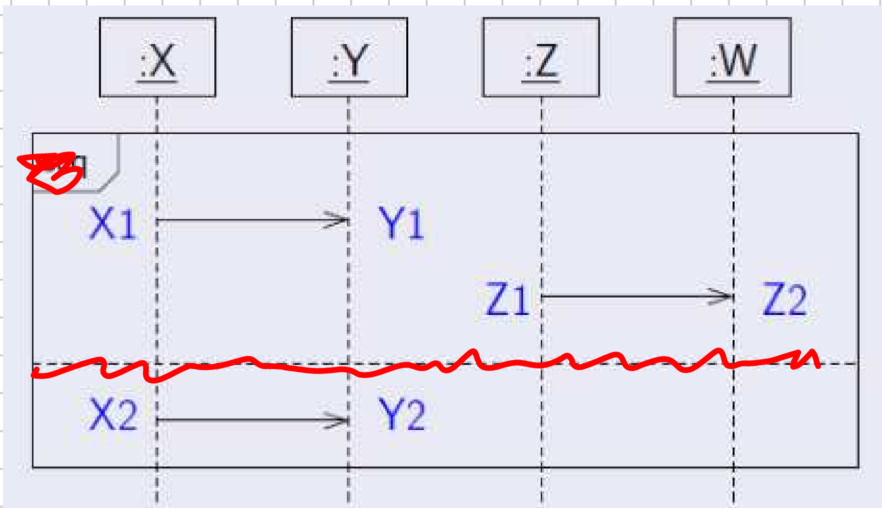
$Y1 < Y2$

mögliche Abläufe

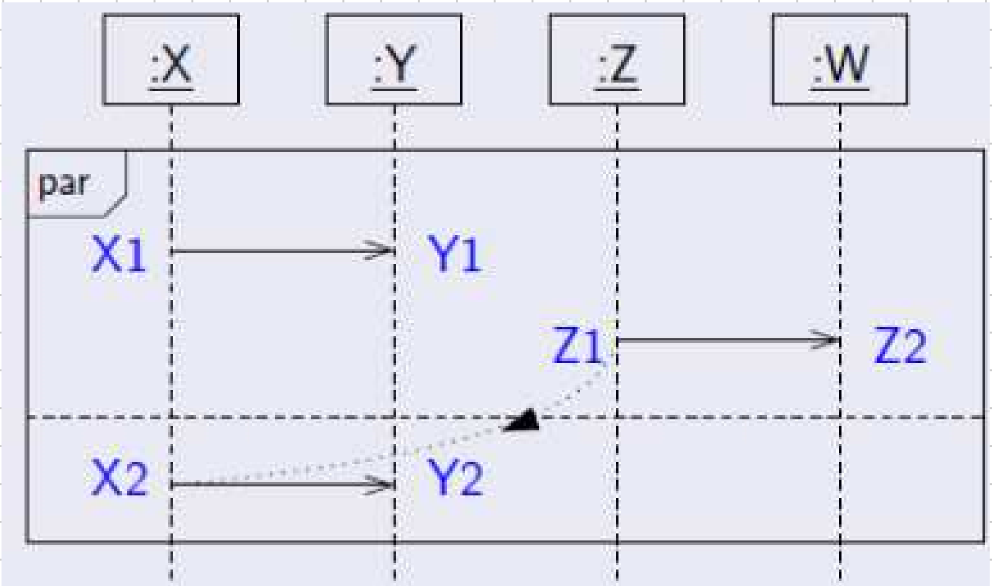
$X1, Y1, Z1, Z2, X2, Y2$

$X1, X2, Y1, Z1, Z2, Y2$

ohne seq:



$X1 < Y1 < Z1 < Z2 < X2 < Y2$



$x1 < y1 < z1 < z2$

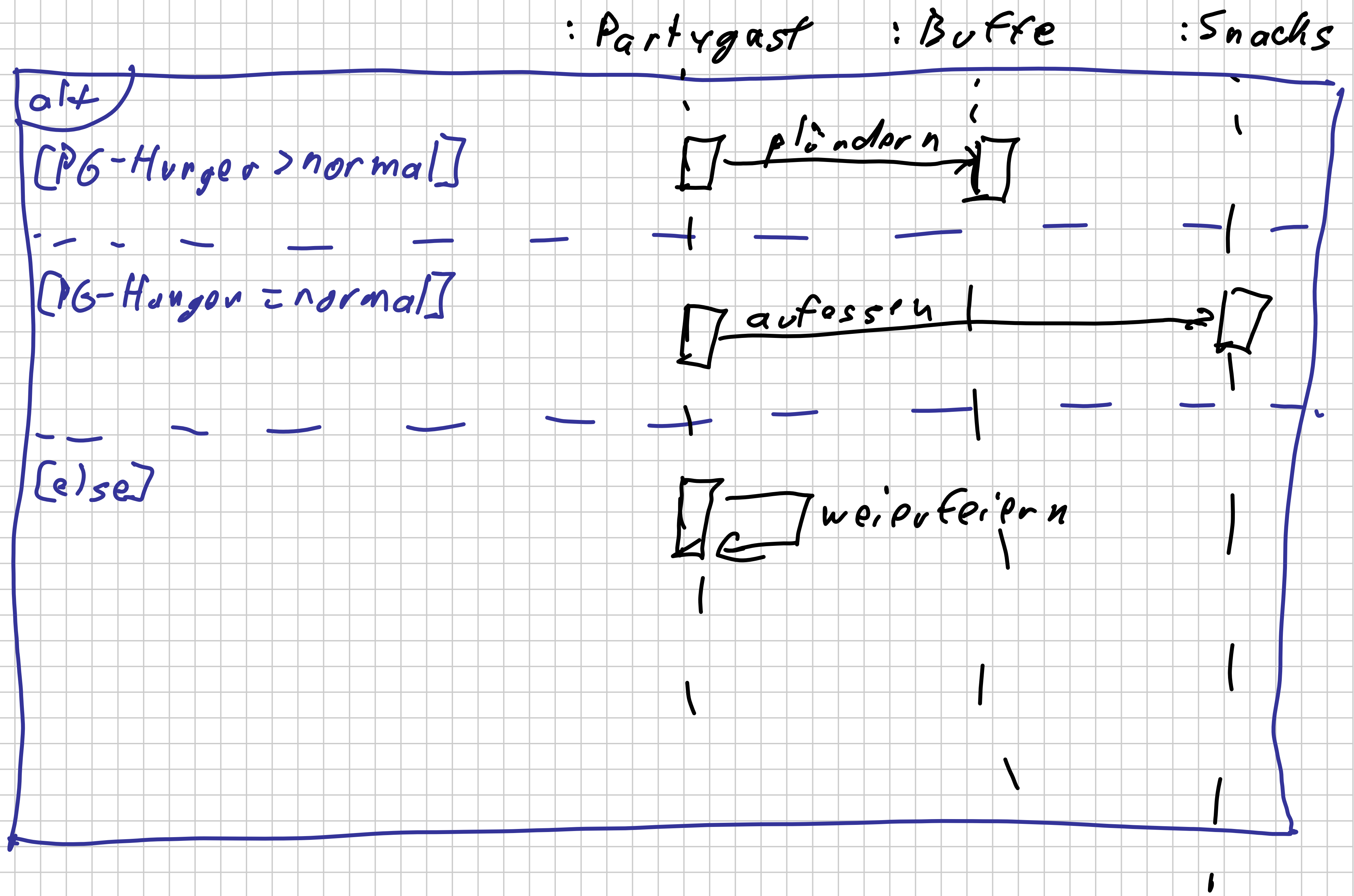
$x2 < y2$

$z1 < x2$

mögliche Abläufe

$x1, y1, z1, x2, y2, z2$

~~$x1, x2, y1, z1, z2, y2$~~


:Partygast
:Buffet
:Snacks
alt
[PG-Hunger > normal]
plündern
[PG-Hunger = normal]
aufessen
[else]
weiterfeiern