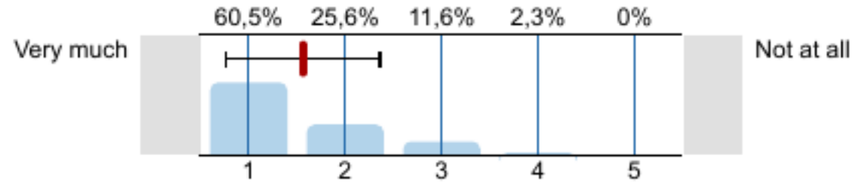
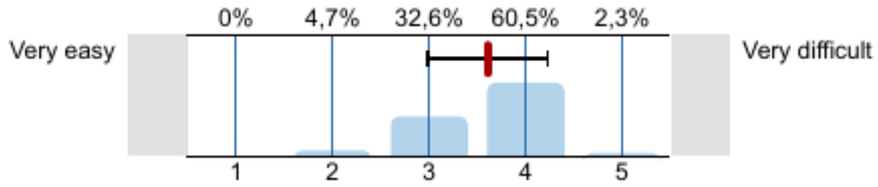
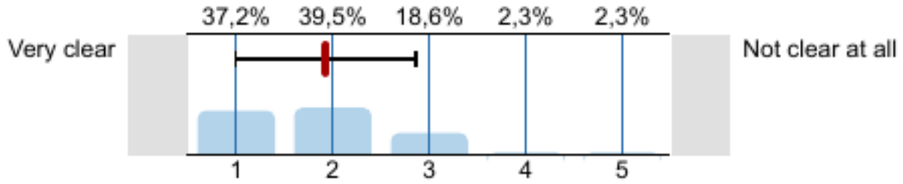
How much do you like attending this course?



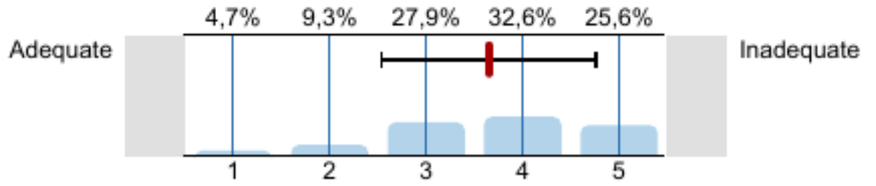
Please rate the contents.



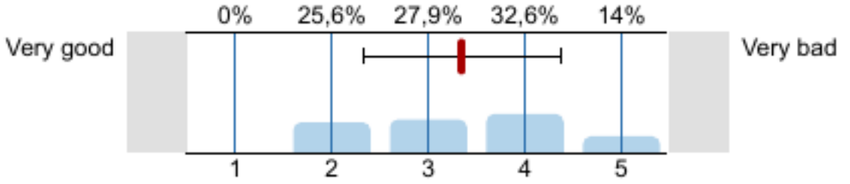
Please rate the clarity (using helpful examples).



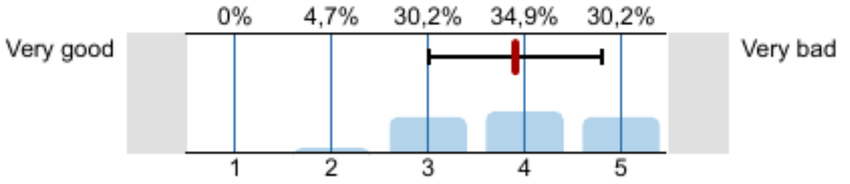
In comparison to the number of participants, the size of the room is



Acoustic conditions are



Visibility conditions are



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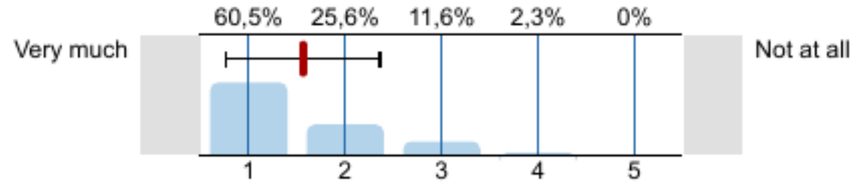
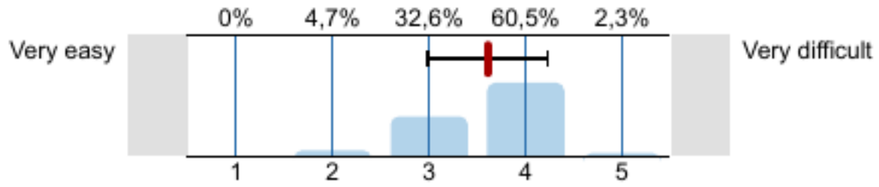


Please rate the contents.



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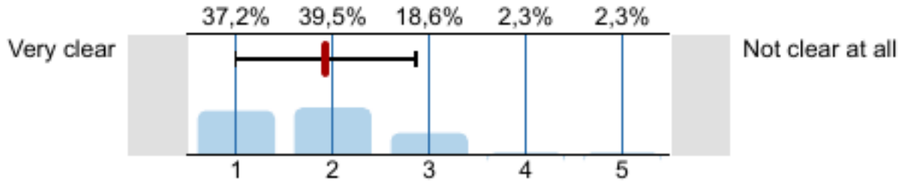

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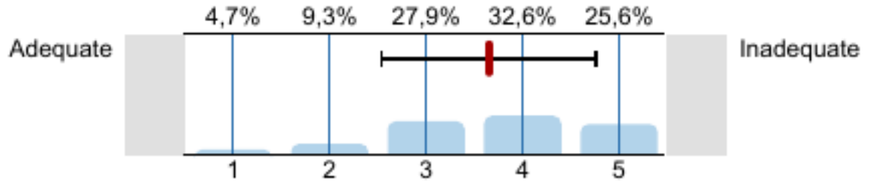

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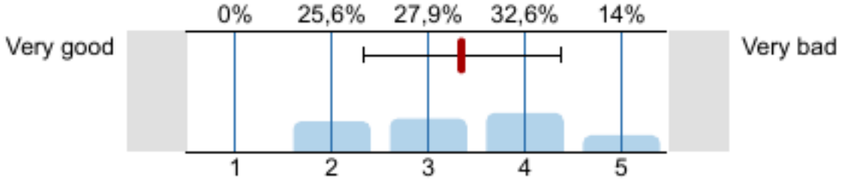

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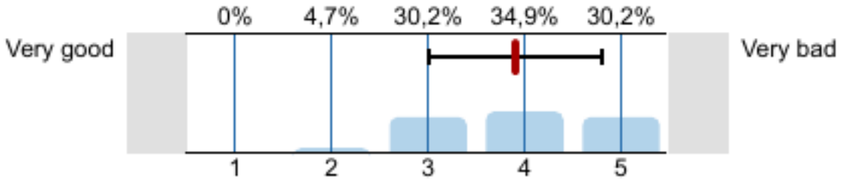
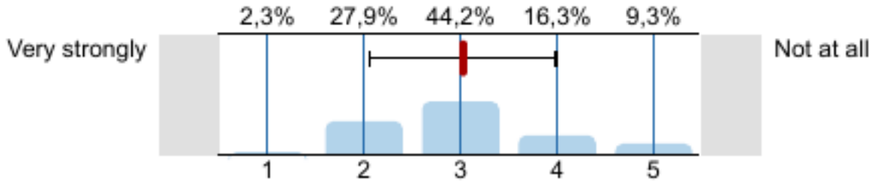
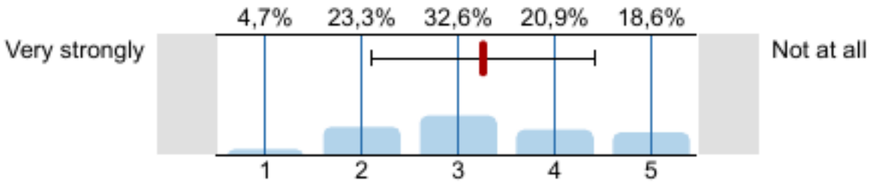


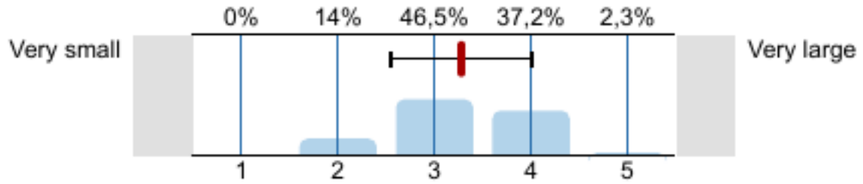
Does the lecturer refer to latest research activities?



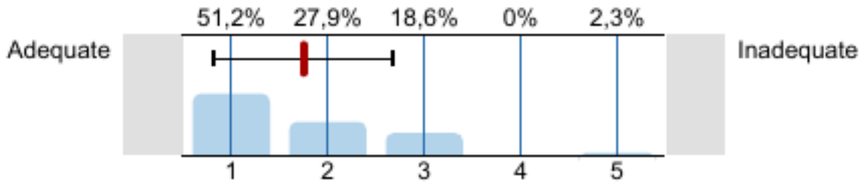
Does the lecturer refer to correlations between theory and practice?



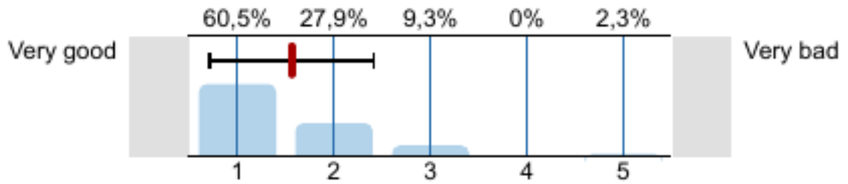
How large is the amount of work for this course?



The amount of work required for this course is. . .



Please rate the course as a whole.



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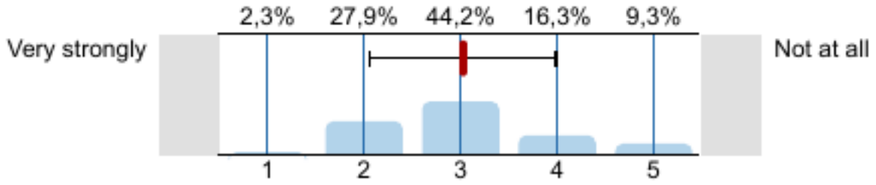
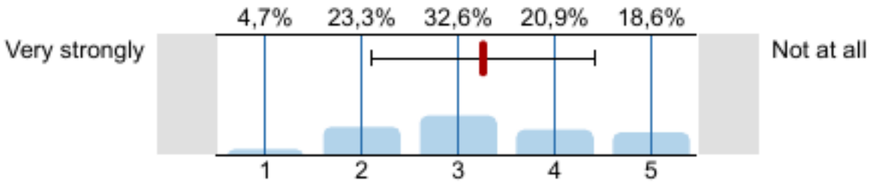


Does the lecturer refer to correlations between theory and practice?



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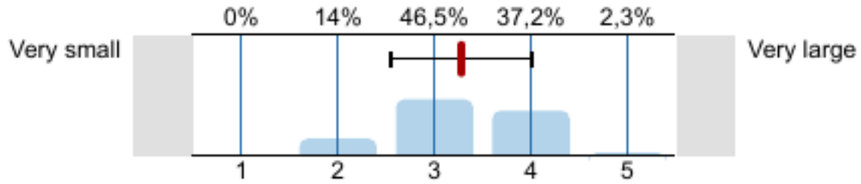

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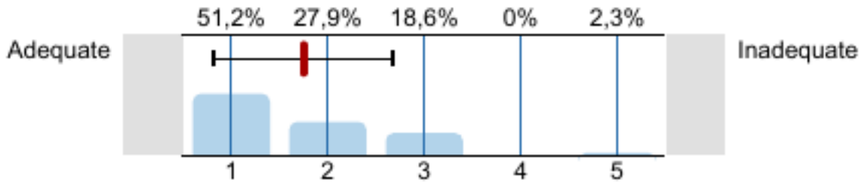

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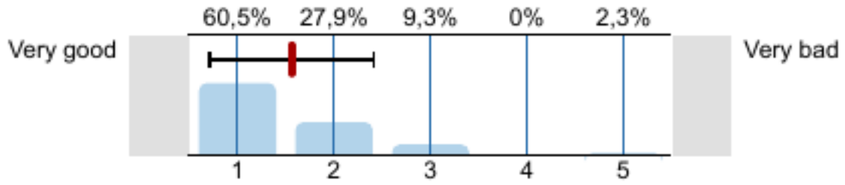


What I liked most:

examples (3x)

style of lecture (7x)

motivated lecturer (3x)

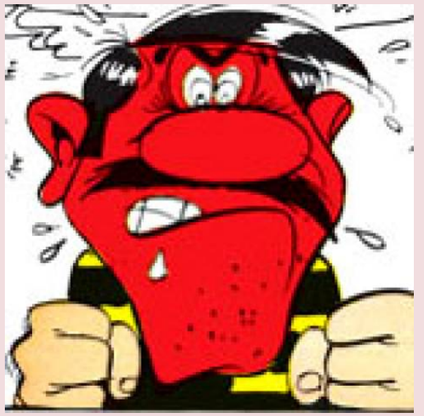
interesting topic (3x)

What I did not like at all:

room (5x)

no slides (10x)

too fast (2x)



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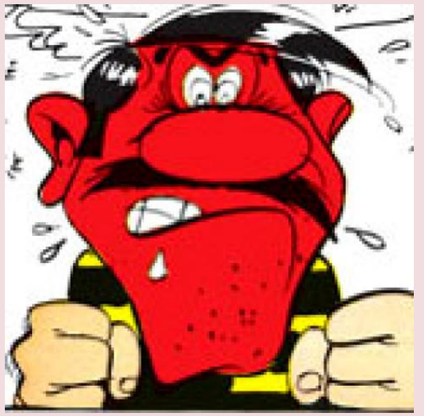

property P: G is a comparability graph.

property $\overline{P}$: $\overline{G}$ is a comparability graph.

property C: G is a chordal graph.

property $\overline{C}$: $\overline{G}$ is a chordal graph.

P	$\overline{P}$	C	$\overline{C}$	graph class	
✓				comparability graphs	Chap.4
		✓		chordal graphs	Chap.3

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		✓	✓	split graphs	Chap.5

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		✓		chordal graphs	Chap.3
	✓	✓		interval graphs	Chap.7
		✓	✓	split graphs	Chap.5
✓	✓			permutation graphs	Chap.6

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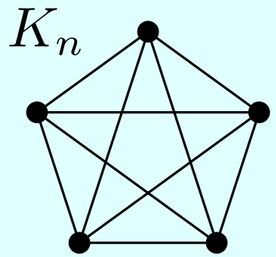
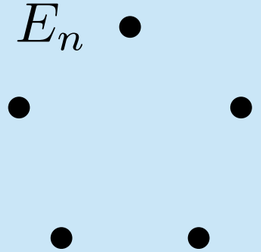
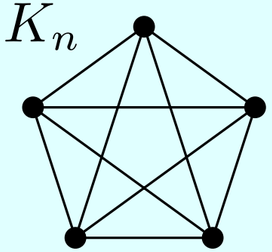
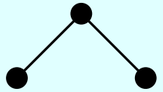
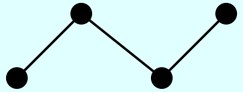
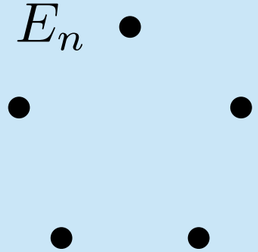
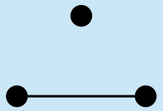
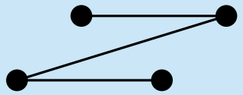
	✓	✓		interval graphs	Chap.7
		✓	✓	split graphs	Chap.5
✓	✓			permutation graphs	Chap.6
✓		✓		cycle-free partial orders	???

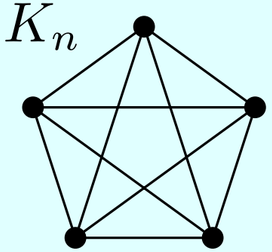
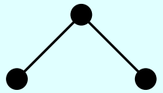
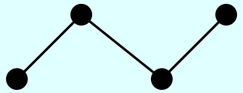
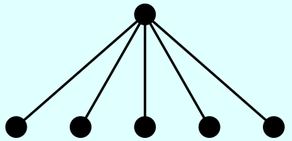
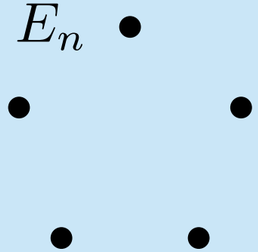
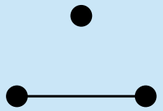
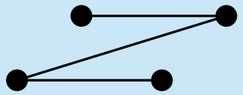
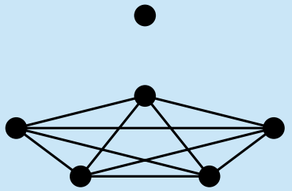
G

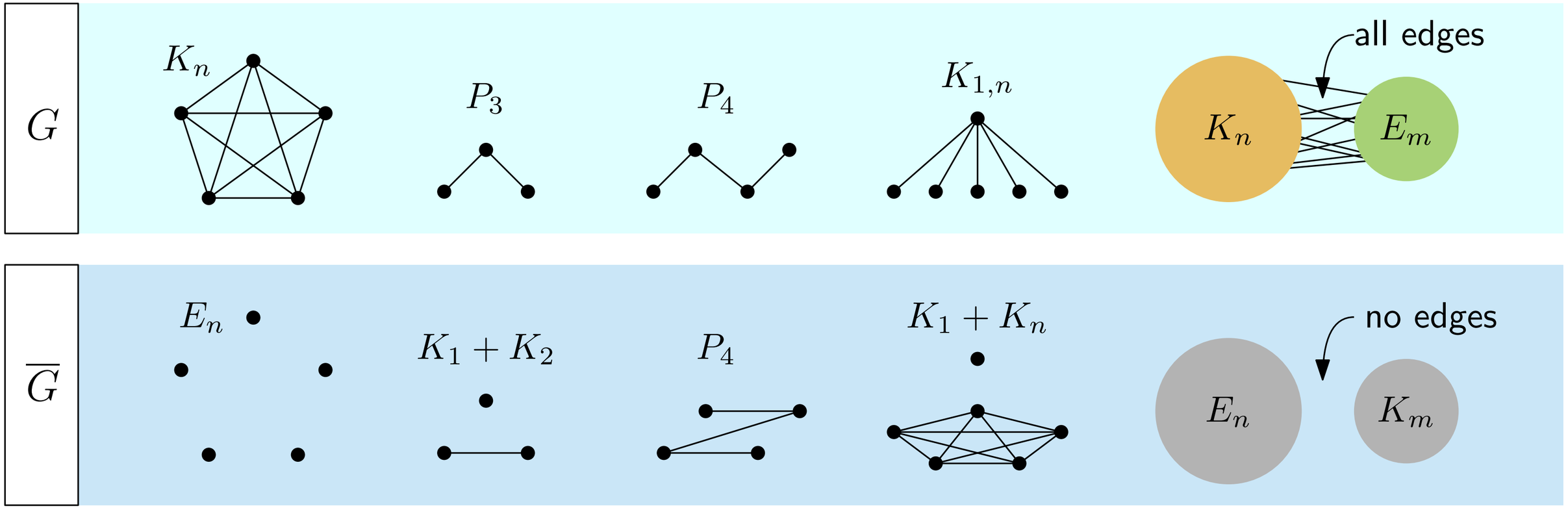


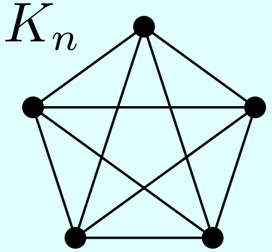
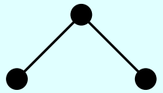
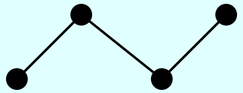
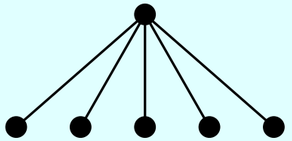
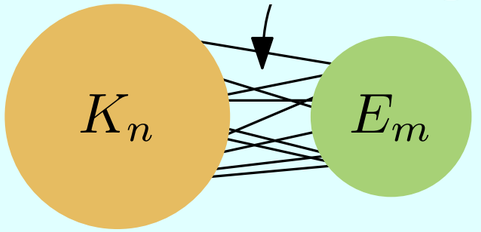
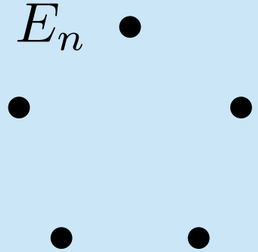
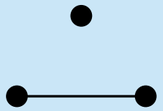
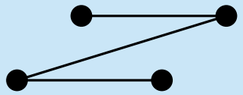
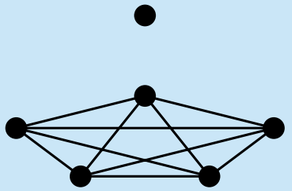
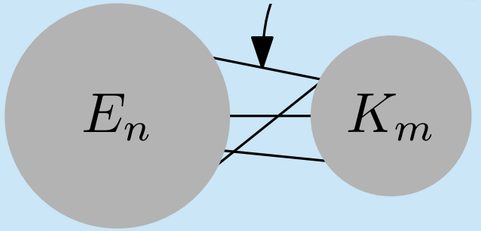
$\overline{G}$

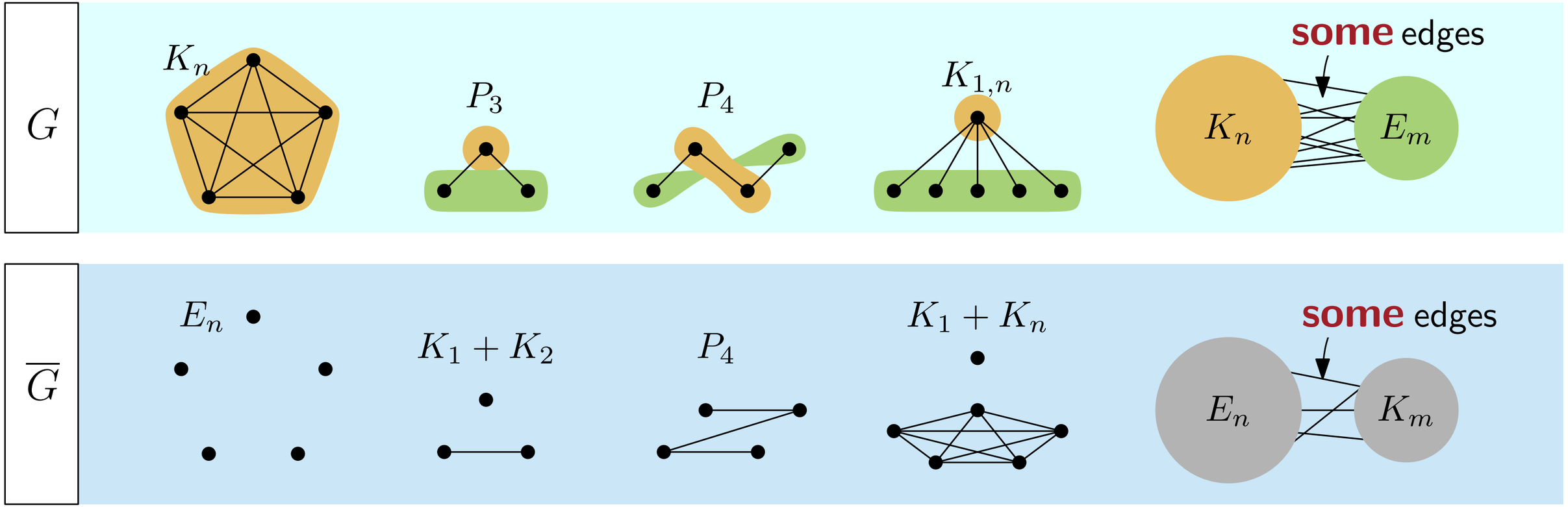


G	K_n 	P_3 	P_4 
$\overline{G}$	E_n 	$K_1 + K_2$ 	P_4 

G	K_n 	P_3 	P_4 	$K_{1,n}$ 
$\overline{G}$	E_n 	$K_1 + K_2$ 	P_4 	$K_1 + K_n$ 


G
K_n
P_3
P_4
$K_{1,n}$
all edges
K_n
E_m
$\overline{G}$
E_n
$K_1 + K_2$
P_4
$K_1 + K_n$
no edges
E_n
K_m

G	K_n 	P_3 	P_4 	$K_{1,n}$ 	**some** edges 
$\overline{G}$	E_n 	$K_1 + K_2$ 	P_4 	$K_1 + K_n$ 	**some** edges 



Thm 5.3.
For every graph $G = (V, E)$ the following are equivalent:

(i) G is chordal and $\overline{G}$ is chordal (G split graph)

(ii) $V = K + S$ with K clique and S independent set

(iii) $C_4, C_5 \not\subseteq_{\text{ind}} G$ and $C_4 \not\subseteq_{\text{ind}} \overline{G}$

property P: G is a comparability graph.

property $\overline{P}$: $\overline{G}$ is a comparability graph.

property C: G is a chordal graph.

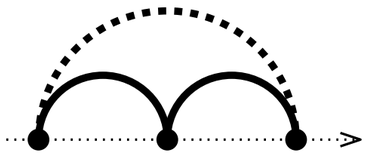
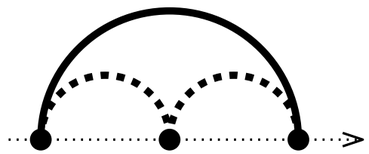
property $\overline{C}$: $\overline{G}$ is a chordal graph.

P	$\overline{P}$	C	$\overline{C}$	graph class	
✓				comparability graphs	Chap.4
		✓		chordal graphs	Chap.3
	✓	✓		interval graphs	Chap.7
		✓	✓	split graphs	Chap.5
✓	✓			permutation graphs	Chap.6
✓		✓		cycle-free partial orders	???

Thm.
For every (undirected) graph $G = (V, E)$ the following are equivalent:

(i) G and $\bar{G}$ are comparability graphs.

(ii) There exists a vertex ordering σ of G

without  and without 

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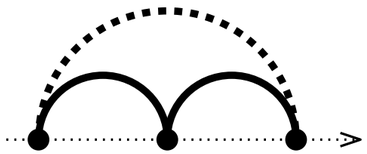
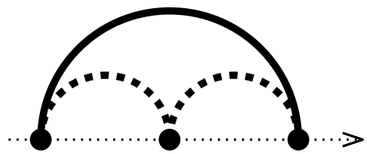
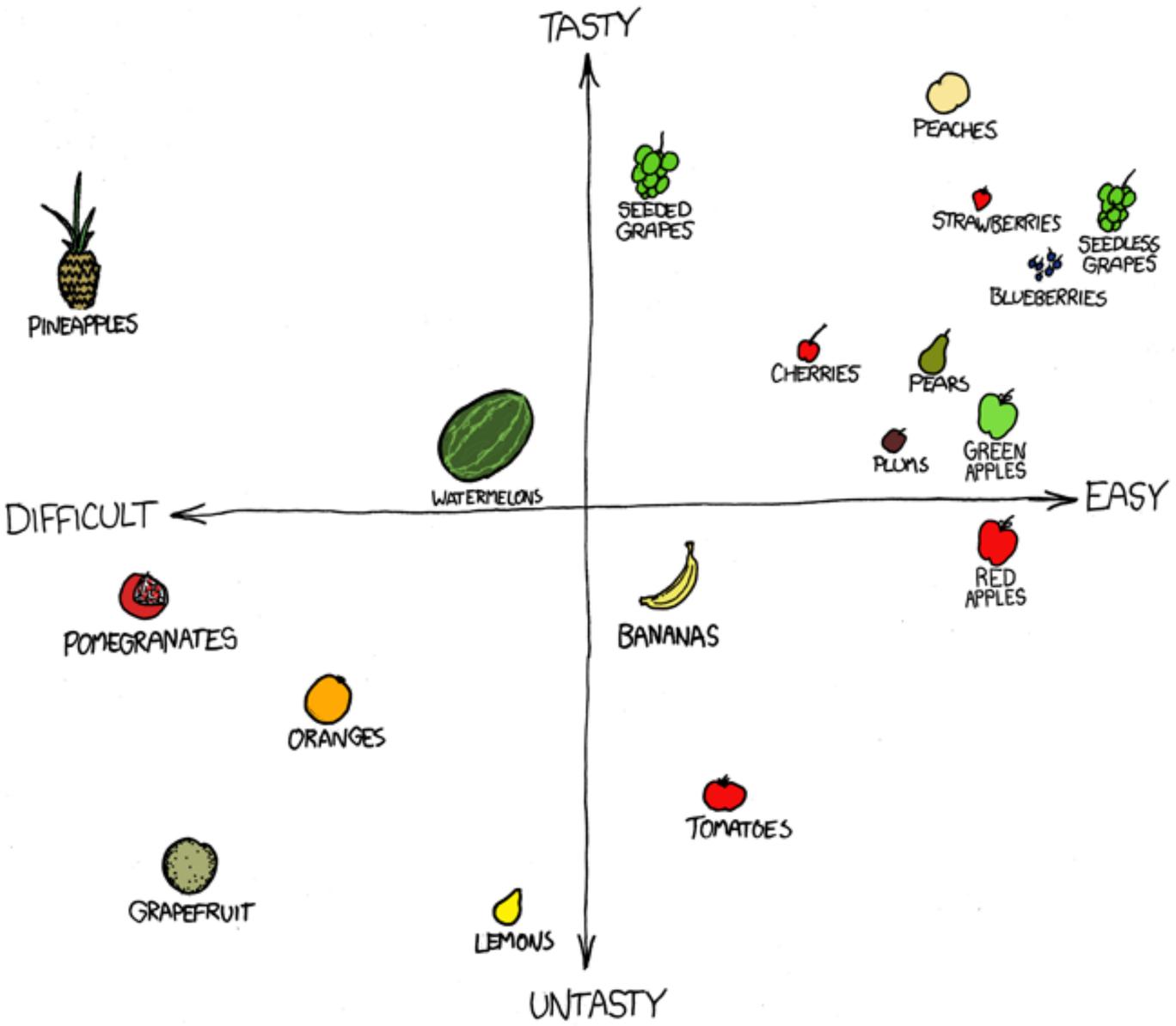
without  and without 

(iii) There exists an *embedding* $V \to \mathbb{R}^2$ such that

$uv \in E$ if and only if $u_x < v_x \Leftrightarrow u_y < v_y$


TASTY
UNTASTY
DIFFICULT
EASY
PINEAPPLES
SEEDED GRAPES
PEACHES
STRAWBERRIES
SEEDLESS GRAPES
BLUEBERRIES
CHERRIES
PEARS
PLUMS
GREEN APPLES
WATERMELONS
RED APPLES
POMEGRANATES
BANANAS
ORANGES
TOMATOES
GRAPEFRUIT
LEMONS