A Gentle Introduction to Epistemic Network Analysis

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WISCONSIN
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epistemic analytics
turning data into meaning

A simple example…

A simple example…

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

A simple example…

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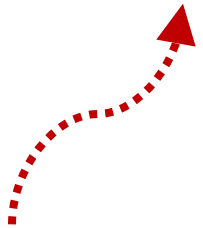
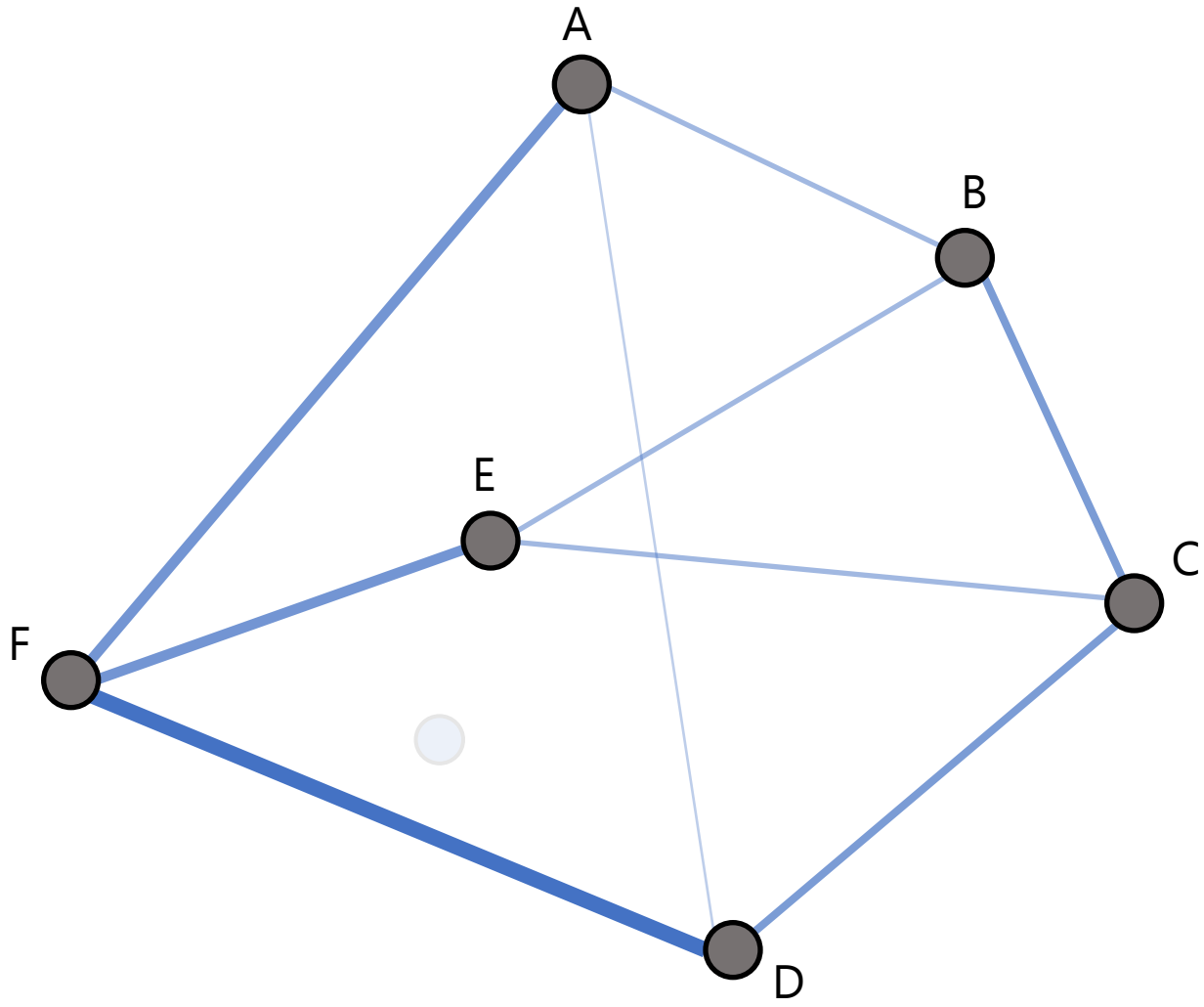
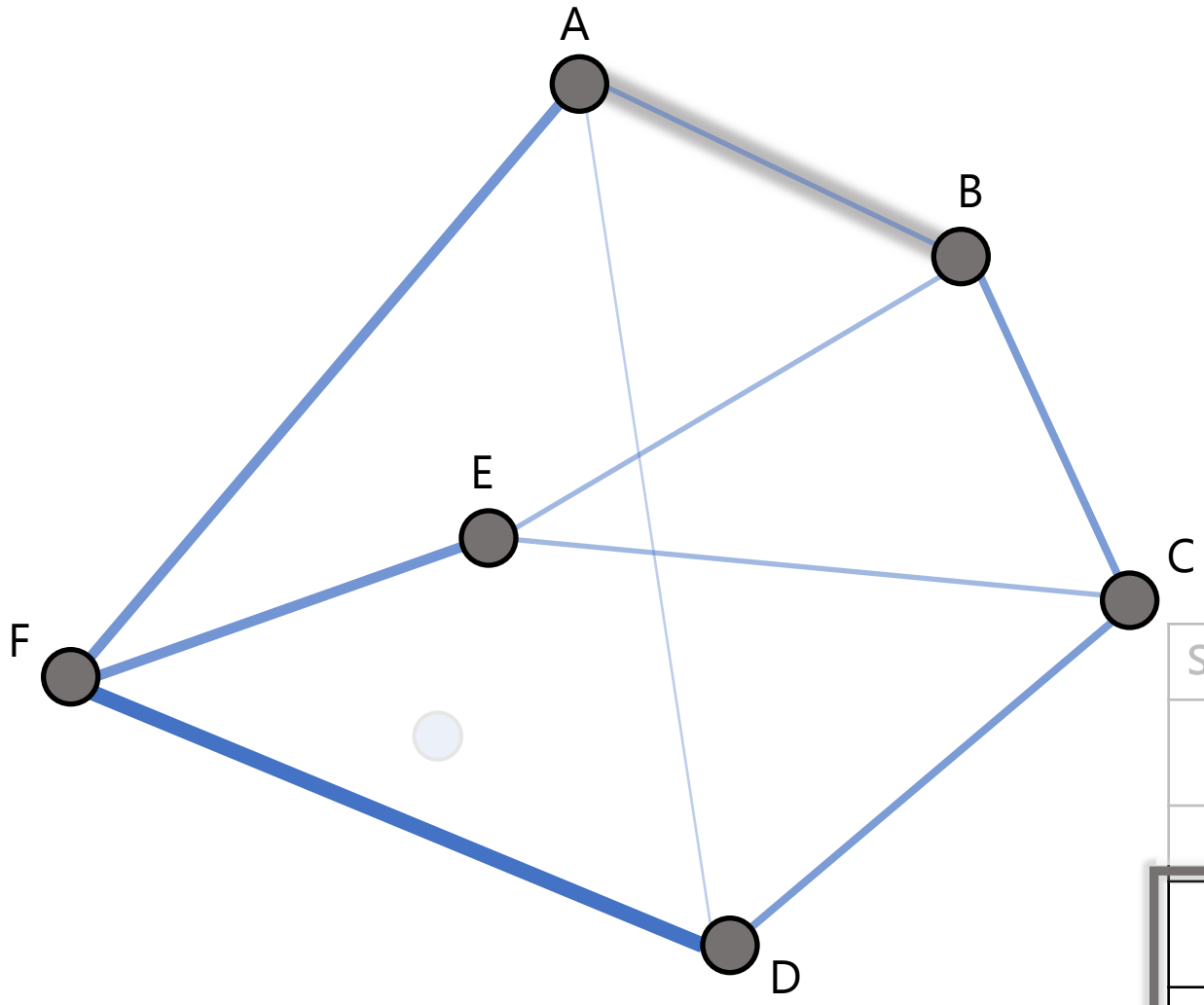
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

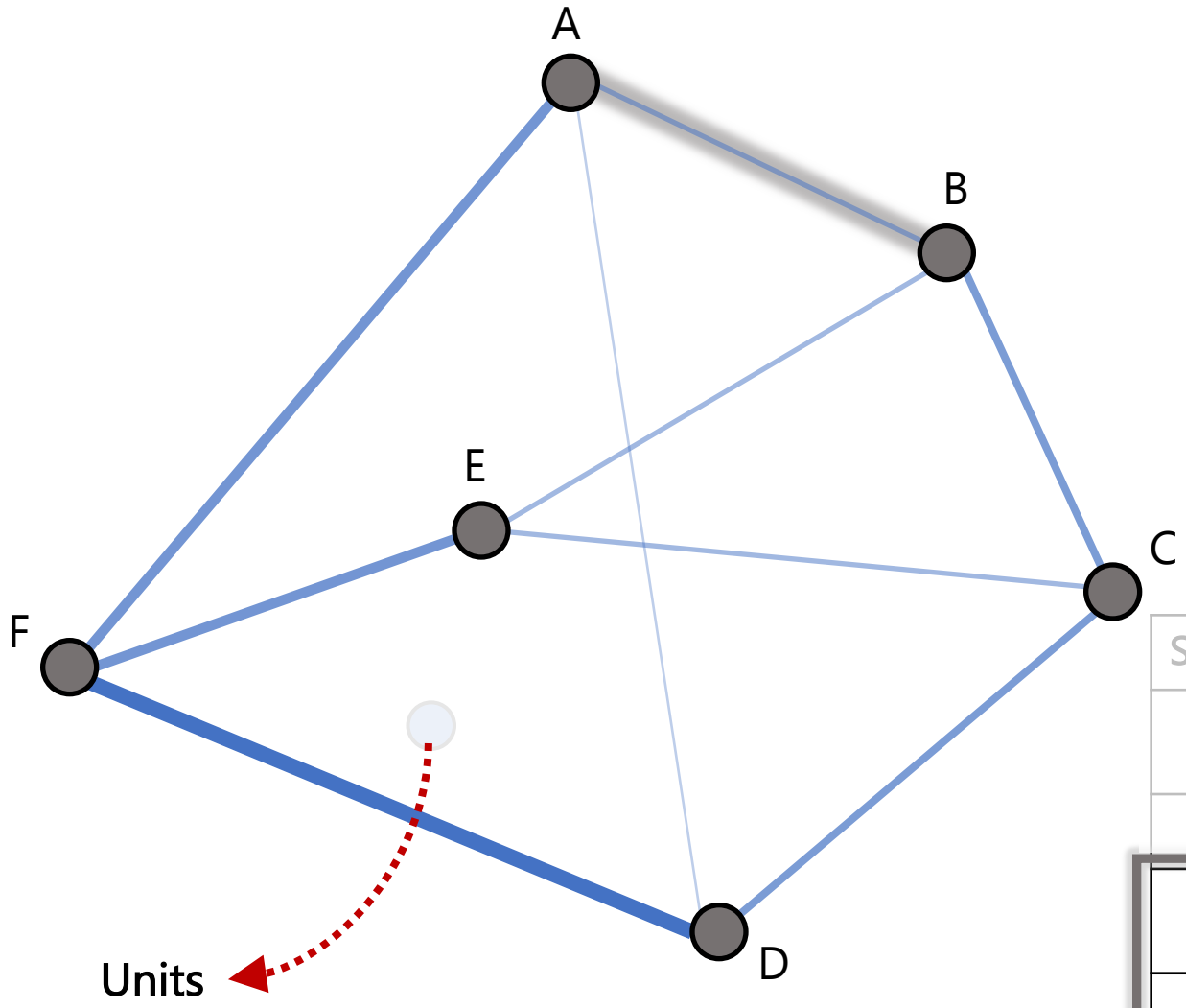


Fake text! (Lorem Ipsum)


A
B
E
C
F
D



Student	Group	Day	Text	A	B
	1	1	Lorem ipsum dolor sit amet, consectetur		
	1	1	Donec sit amet urna vitae		
	1	1	Aliquam egestas, orci in bibendum pretium,		
	1	1	nec vestibulum risus odio		
	1	1	congue vitae ex		



Student	Group	Day	Text	A	B
	1	1	Lorem ipsum dolor sit amet, consectetur		
	1	1	Donec sit amet urna vitae		
	1	1	Aliquam egestas, orci in bibendum pretium,		
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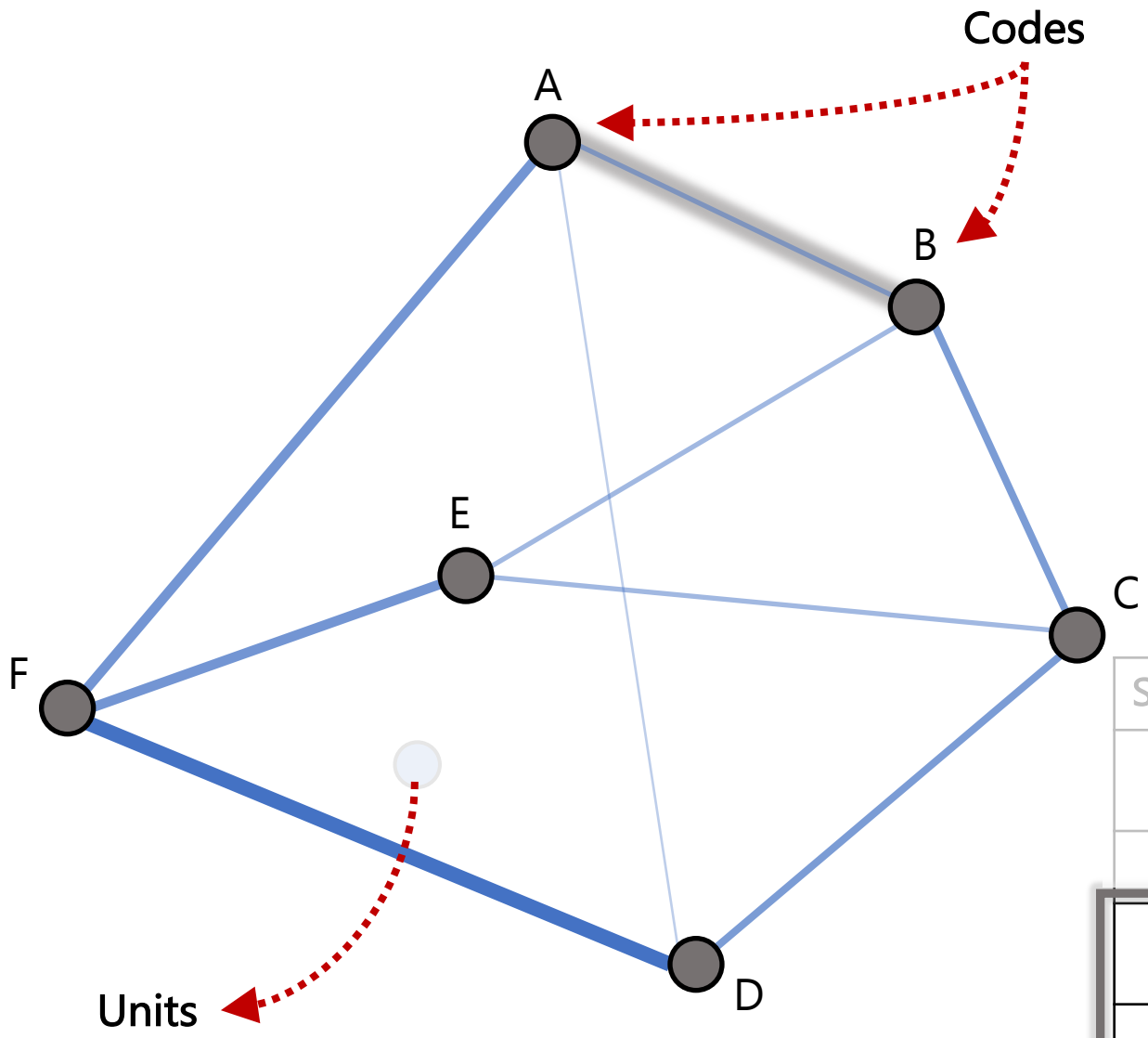
	1	1	congue vitae ex		



Student	Group	Day	Text	A	B
	1	1	Lorem ipsum dolor sit amet, consectetur		
	1	1	Donec sit amet urna vitae		
	1	1	Aliquam egestas, orci in bibendum pretium,		
	1	1	nec vestibulum risus odio		
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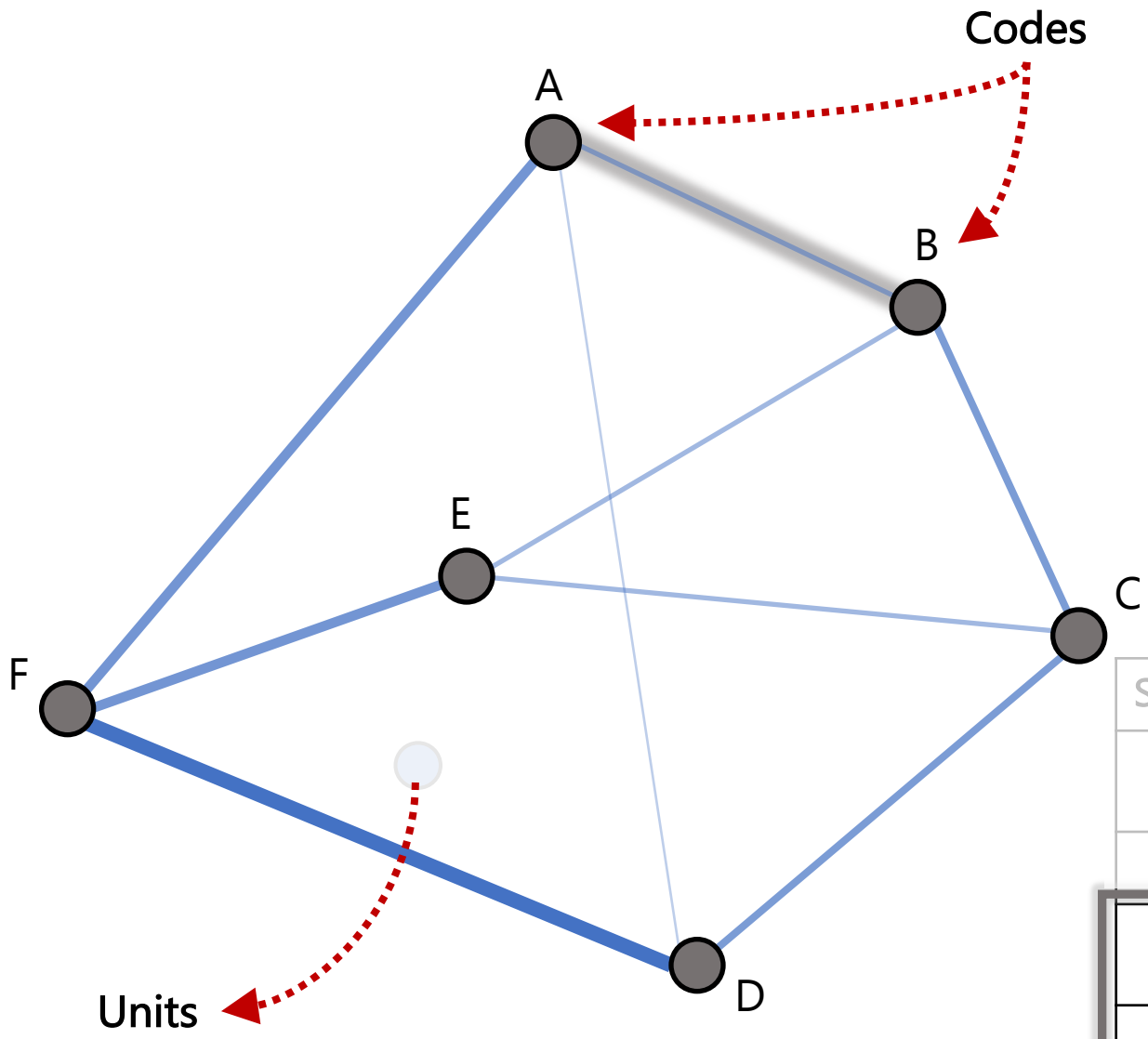

Conversations

Student	Group	Day	Text	A	B
	1	1	Lorem ipsum dolor sit amet, consectetur		
	1	1	Donec sit amet urna vitae		
	1	1	Aliquam egestas, orci in bibendum pretium,		
	1	1	nec vestibulum risus odio		
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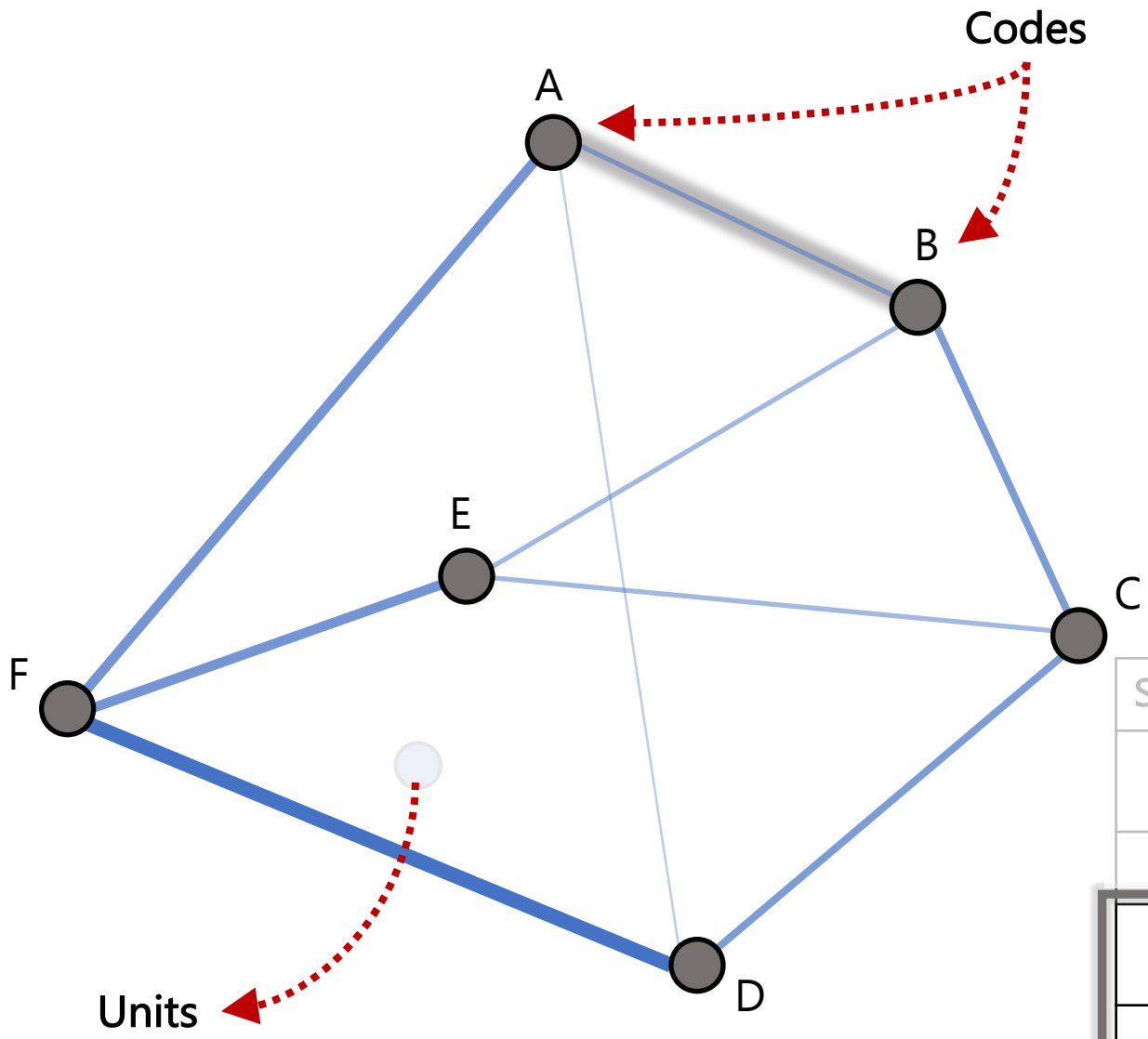

Conversations

Window

Student	Group	Day	Text	A	B
	1	1	Lorem ipsum dolor sit amet, consectetur		
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	1	1	Aliquam egestas, orci in bibendum pretium,		
	1	1	nec vestibulum risus odio		
	1	1	congue vitae ex		

Specifying an ENA model…

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Specifying an ENA model…

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	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Codes

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Units (of analysis)

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

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Student	Group	Day	Text	A	B	C	D	E	F
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	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Conversations

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Conversations

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	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

Conversations

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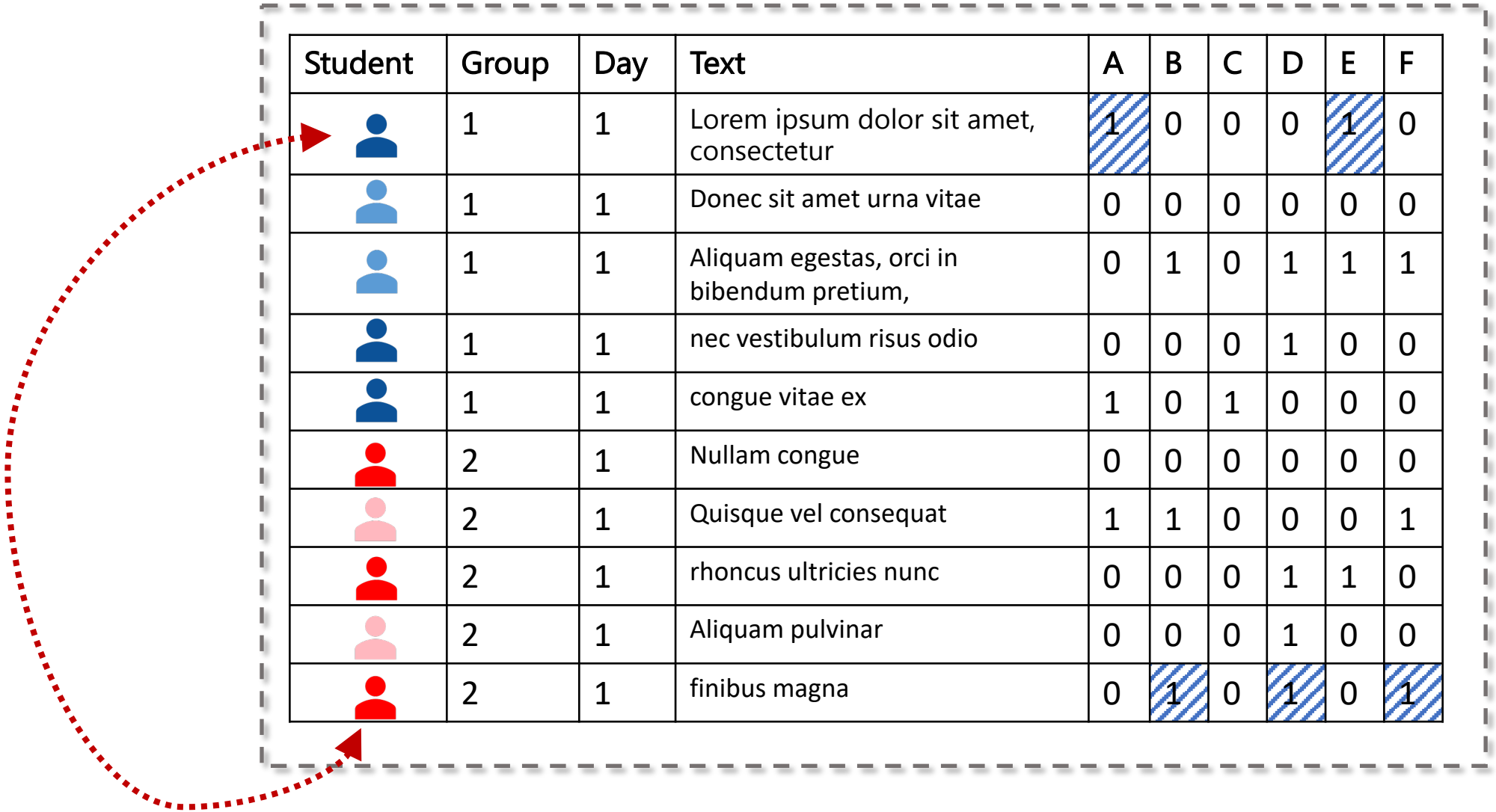
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

Conversations



Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

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	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Student	Group	Day	Text	A	B	C	D	E	F
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

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	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Student	Group	Day	Text	A	B	C	D	E	F
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

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Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Student	Group	Day	Text	A	B	C	D	E	F
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

Conversations

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	2	Vestibulum ante ipsum	1	0	0	0	0	0
	1	2	Quisque vel consequat	1	0	0	0	0	1
	1	2	auctor ut tristiqu	1	0	0	0	1	0
	1	2	Praesent finibus diam et	0	0	0	0	0	0
	1	2	semper risus at,	0	1	0	1	0	1

Conversations

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	2	Vestibulum ante ipsum	1	0	0	0	0	0
	1	2	Quisque vel consequat	1	0	0	0	0	1
	1	2	auctor ut tristiqu	1	0	0	0	1	0
	1	2	Praesent finibus diam et	0	0	0	0	0	0
	1	2	semper risus at,	0	1	0	1	0	1

Conversations

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0

Student	Group	Day	Text	A	B	C	D	E	F
	1	2	Vestibulum ante ipsum	1	0	0	0	0	0
	1	2	Quisque vel consequat	1	0	0	0	0	1
	1	2	auctor ut tristiqu	1	0	0	0	1	0
	1	2	Praesent finibus diam et	0	0	0	0	0	0
	1	2	semper risus at,	0	1	0	1	0	1

Conversations

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	1	0	0	0	0	1
	1	1	auctor ut tristiqu	1	0	0	0	1	0
	1	1	Praesent finibus diam et	0	0	0	0	0	0
	1	1	semper risus at,	0	1	0	1	0	1

Conversations

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	1	0	0	0	0	1
	1	1	auctor ut tristiqu	1	0	0	0	1	0
	1	1	Praesent finibus diam et	0	0	0	0	0	0
	1	1	semper risus at,	0	1	0	1	0	1

Window

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	1	0	0	0	0	1
	1	1	auctor ut tristiqu	1	0	0	0	1	0
	1	1	Praesent finibus diam et	0	0	0	0	0	0
	1	1	semper risus at,	0	1	0	1	0	1

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	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	1	0	0	0	0	1
	1	1	auctor ut tristiqu	1	0	0	0	1	0
	1	1	Praesent finibus diam et	0	0	0	0	0	0
	1	1	semper risus at,	0	1	0	1	0	1

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	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
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	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	1	0	0	0	0	1
	1	1	auctor ut tristiqu	1	0	0	0	1	0
	1	1	Praesent finibus diam et	0	0	0	0	0	0
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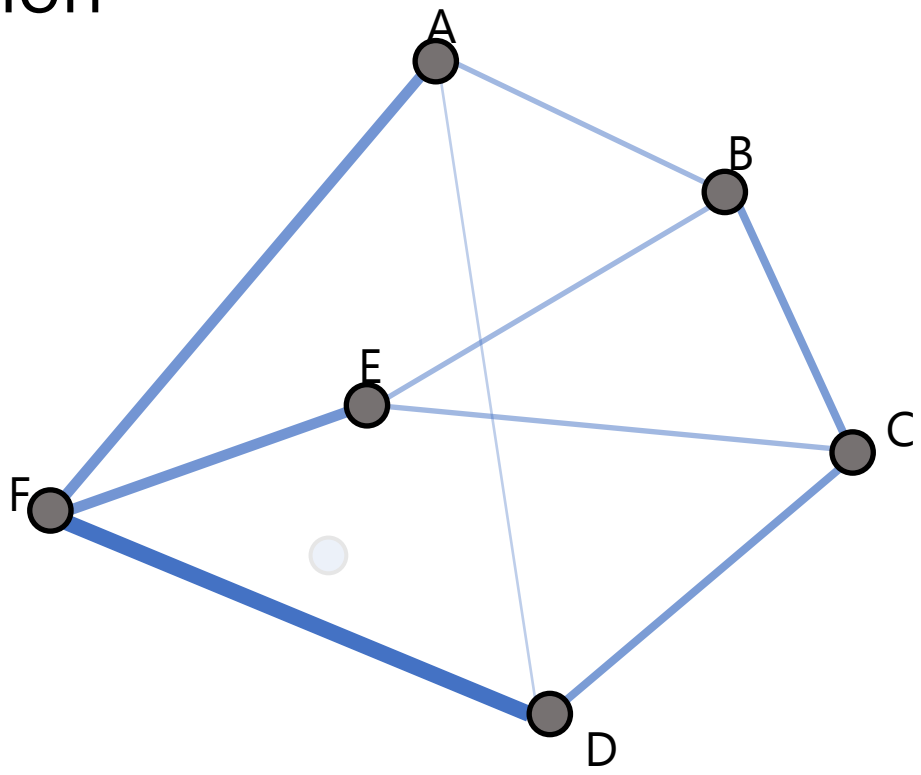
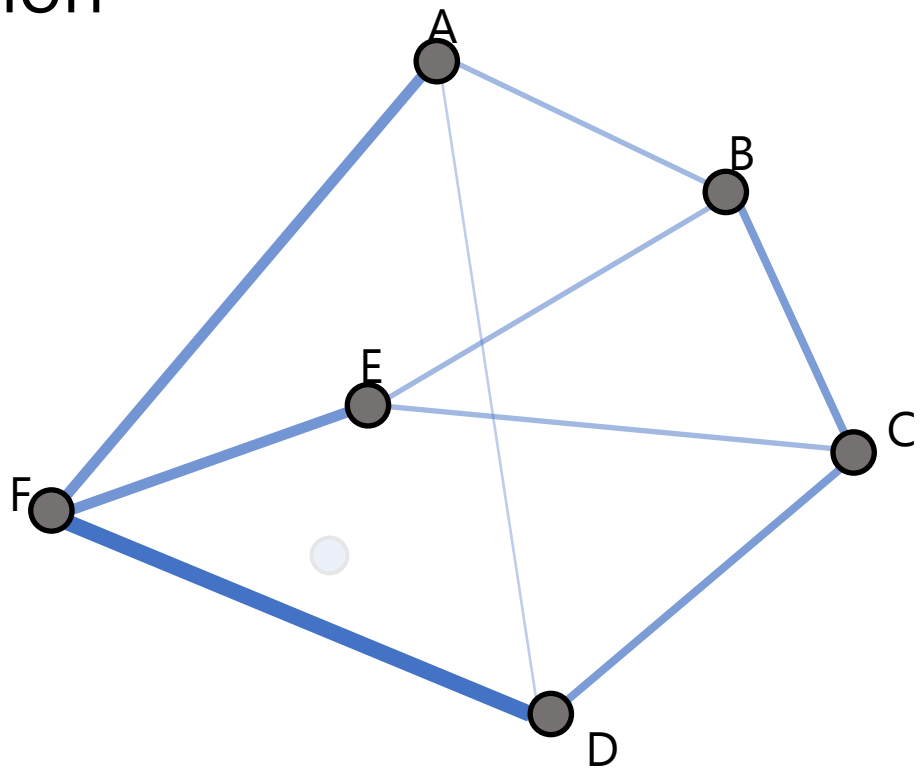
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	1	0	0	0	0	1
	1	1	auctor ut tristiqu	1	0	0	0	1	0
	1	1	Praesent finibus diam et	0	0	0	0	0	0
	1	1	semper risus at,	0	1	0	1	0	1

Network accumulation

Network accumulation

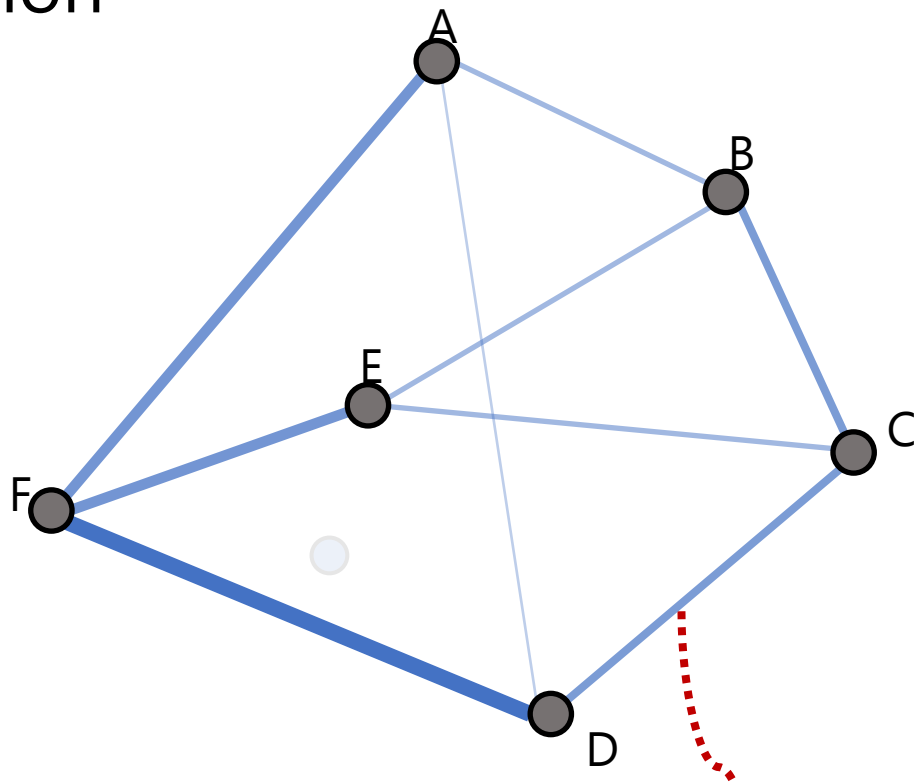


Network accumulation



	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	5	0	1	0	7	6	0	5	0	6	5	0	0	8	7

Network accumulation



A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
5	0	1	0	7	6	0	5	0	6	5	0	0	8	7

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	1	1	1	2	1	0	1	0	0	1	1	1	1	1	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
1	1	1	2	1	0	1	0	0	1	0	0	1	1	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	1	0	1	0	0	0	1	1	1	0	0	0	1	1	1

Network accumulation

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	1	1	Vestibulum ante ipsum	1	0	0	0	0	0
	1	1	Quisque vel consequat	0	0	0	0	0	0

	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	1	1	1	0	0	0	1	1	1	0	0	0	1	1	1

Network accumulation

A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
1	1	1	0	0	0	1	1	1	0	0	0	1	1	1
1	1	1	2	1	0	1	0	0	1	0	0	1	1	0

Network accumulation over all windows and conversations…

A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
0	30	10	0	0	0	5	9	7	0	0	15	0	11	0
9	23	40	6	3	0	13	0	4	1	0	7	1	14	0

Network accumulation over all windows and conversations…

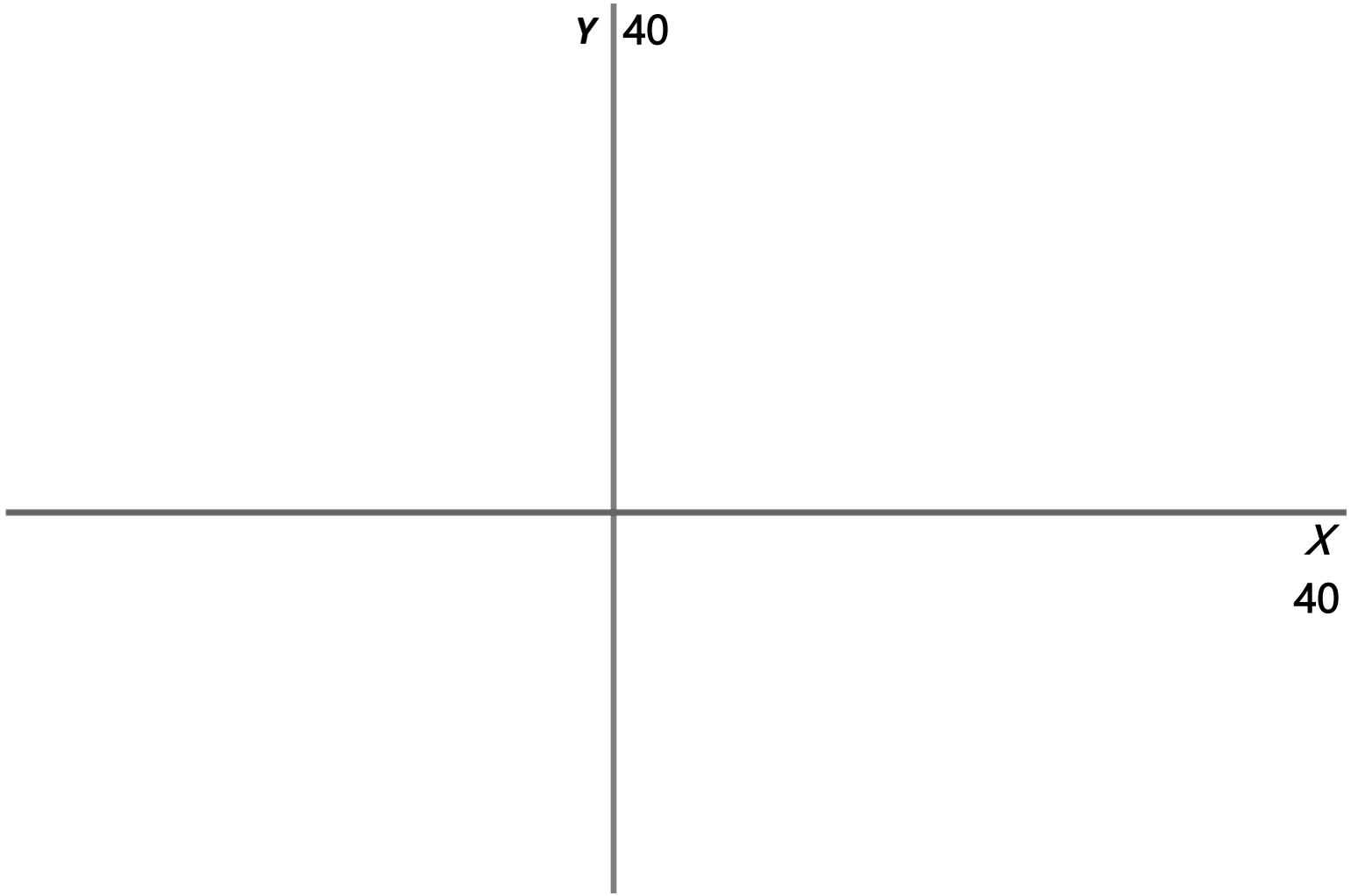
A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
0	30	10	0	0	0	5	9	7	0	0	15	0	11	0
9	23	40	6	3	0	13	0	4	1	0	7	1	14	0
26	5	6	9	29	23	9	28	21	32	31	16	30	16	15
10	17	34	10	13	8	22	13	18	35	7	17	32	30	27
16	24	25	5	10	22	16	32	5	24	7	18	3	24	27
25	3	21	39	5	21	7	38	23	30	15	20	14	29	17
21	3	24	30	21	29	38	28	35	34	21	29	35	37	31
35	26	19	36	36	25	2	25	10	25	39	16	39	16	23
0	23	38	13	13	35	20	3	32	40	35	22	12	14	13
26	18	30	20	8	22	38	24	19	3	27	3	36	1	23

Plotting

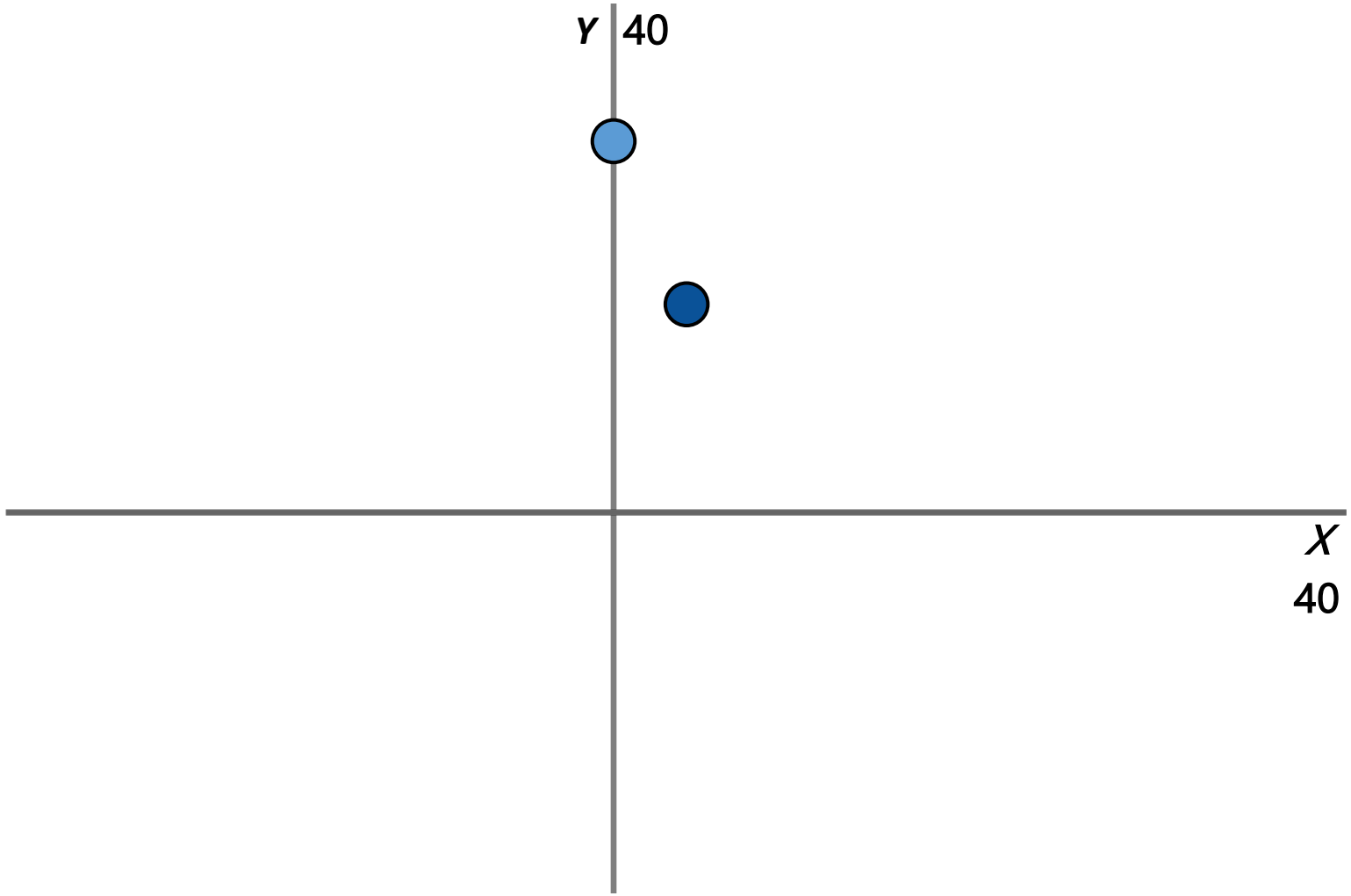
A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
0	30	10	0	0	0	5	9	7	0	0	15	0	11	0
9	23	40	6	3	0	13	0	4	1	0	7	1	14	0
26	5	6	9	29	23	9	28	21	32	31	16	30	16	15
10	17	34	10	13	8	22	13	18	35	7	17	32	30	27
16	24	25	5	10	22	16	32	5	24	7	18	3	24	27
25	3	21	39	5	21	7	38	23	30	15	20	14	29	17
21	3	24	30	21	29	38	28	35	34	21	29	35	37	31
35	26	19	36	36	25	2	25	10	25	39	16	39	16	23
0	23	38	13	13	35	20	3	32	40	35	22	12	14	13
26	18	30	20	8	22	38	24	19	3	27	3	36	1	23

Plotting

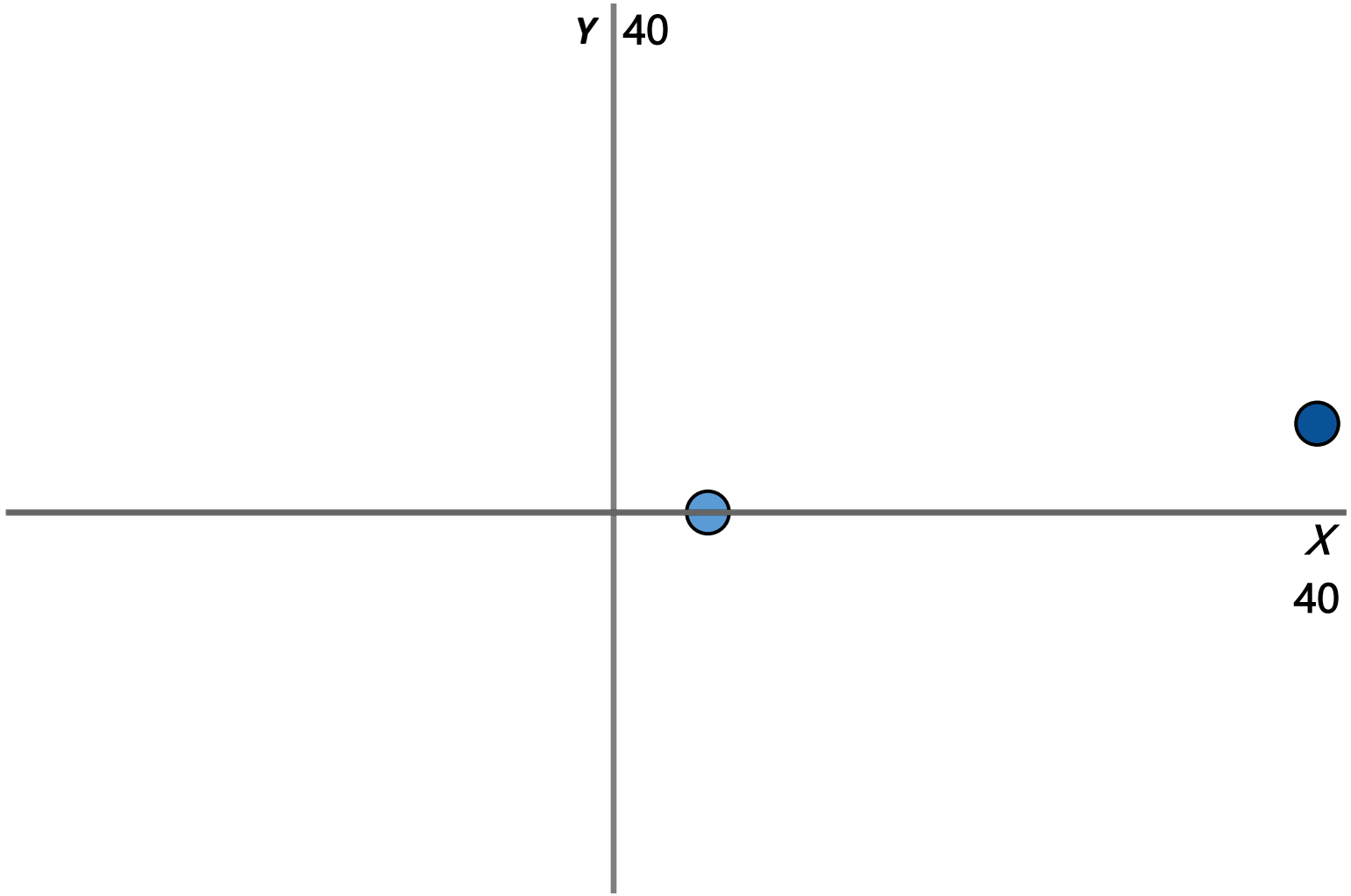
X	Y	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
0	30	10	0	0	0	5	9	7	0	0	15	0	11	0		
9	23	40	6	3	0	13	0	4	1	0	7	1	14	0		
26	5	6	9	29	23	9	28	21	32	31	16	30	16	15		
10	17	34	10	13	8	22	13	18	35	7	17	32	30	27		
16	24	25	5	10	22	16	32	5	24	7	18	3	24	27		
25	3	21	39	5	21	7	38	23	30	15	20	14	29	17		
21	3	24	30	21	29	38	28	35	34	21	29	35	37	31		
35	26	19	36	36	25	2	25	10	25	39	16	39	16	23		
0	23	38	13	13	35	20	3	32	40	35	22	12	14	13		
26	18	30	20	8	22	38	24	19	3	27	3	36	1	23		



	X	Y	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	30	10	0	0	0	5	9	7	0	0	15	0	11	0		
	9	23	40	6	3	0	13	0	4	1	0	7	1	14	0		



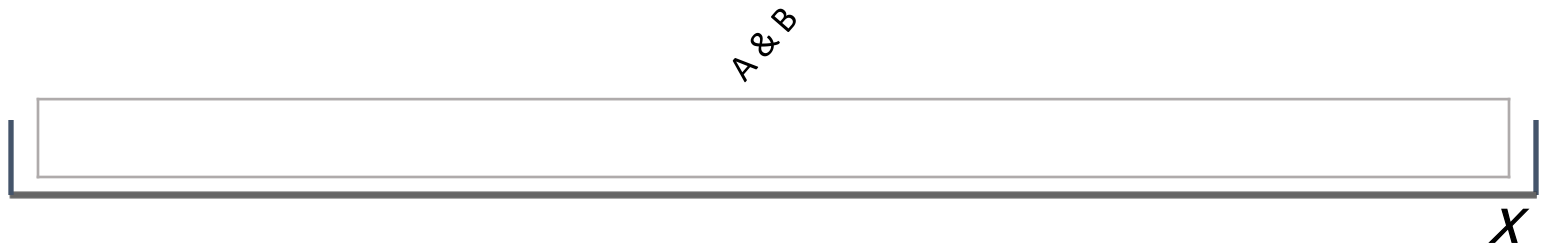
	X	Y	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	30	10	0	0	0	5	9	7	0	0	15	0	11	0		
	9	23	40	6	3	0	13	0	4	1	0	7	1	14	0		



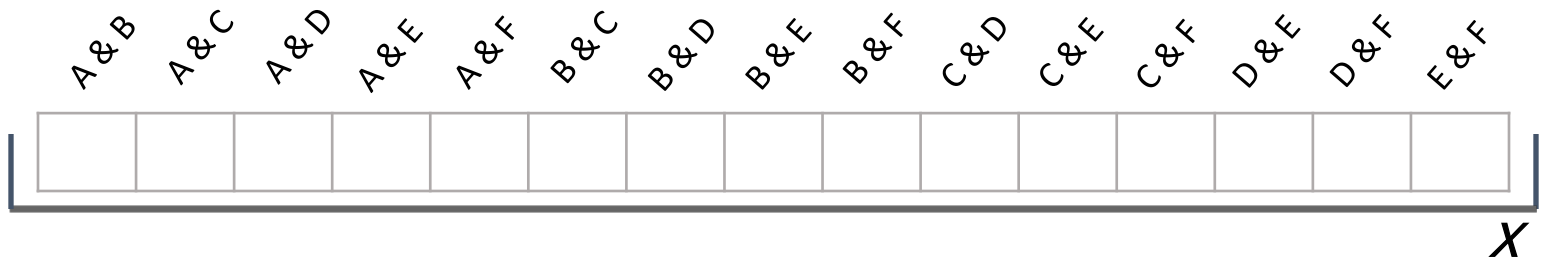
	X	Y												
	A&B	A&C	A&D	A&E	A&F	B&C	B&D	B&E	B&F	C&D	C&E	C&F	D&E	D&F	E&F
	0	30	10	0	0	0	5	9	7	0	0	15	0	11	0
	9	23	40	6	3	0	13	0	4	1	0	7	1	14	0

Dimensional reduction

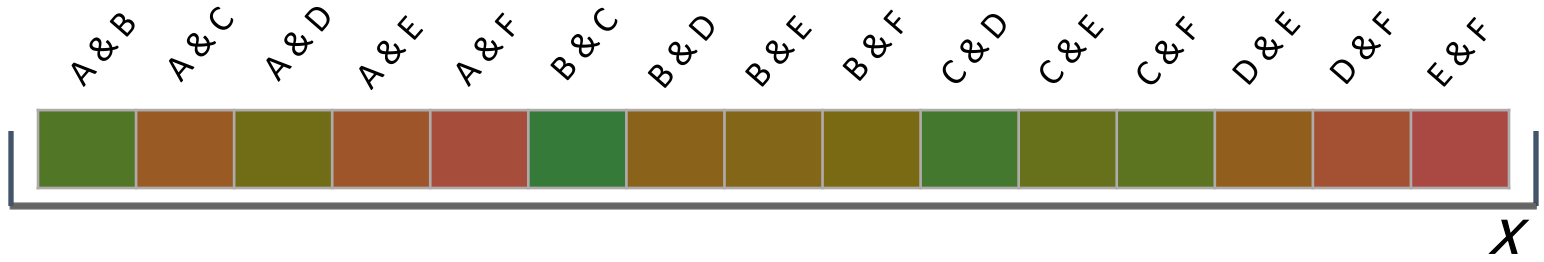
Dimensional reduction



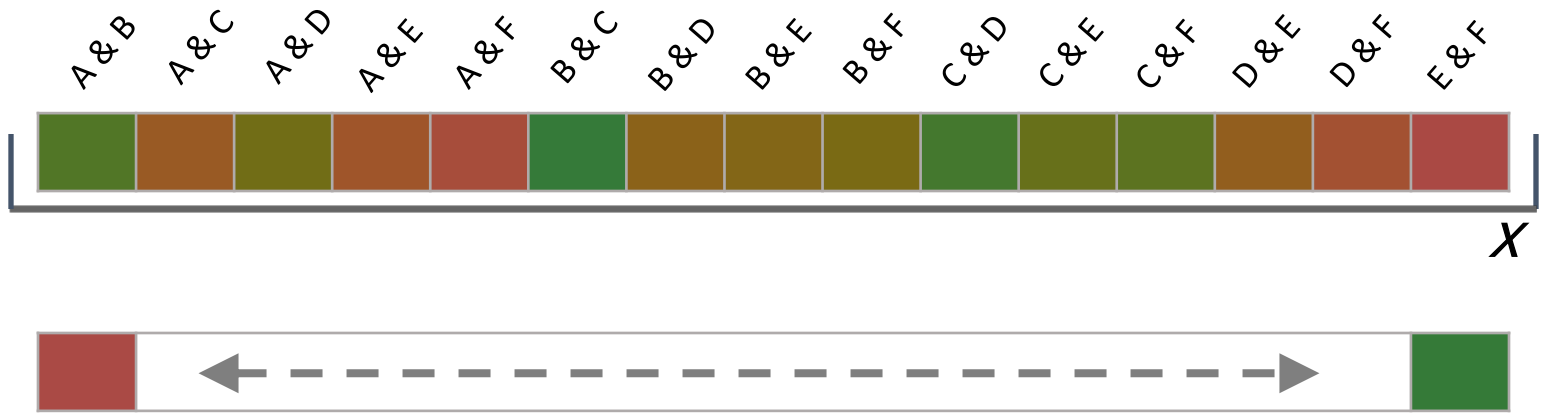
Dimensional reduction



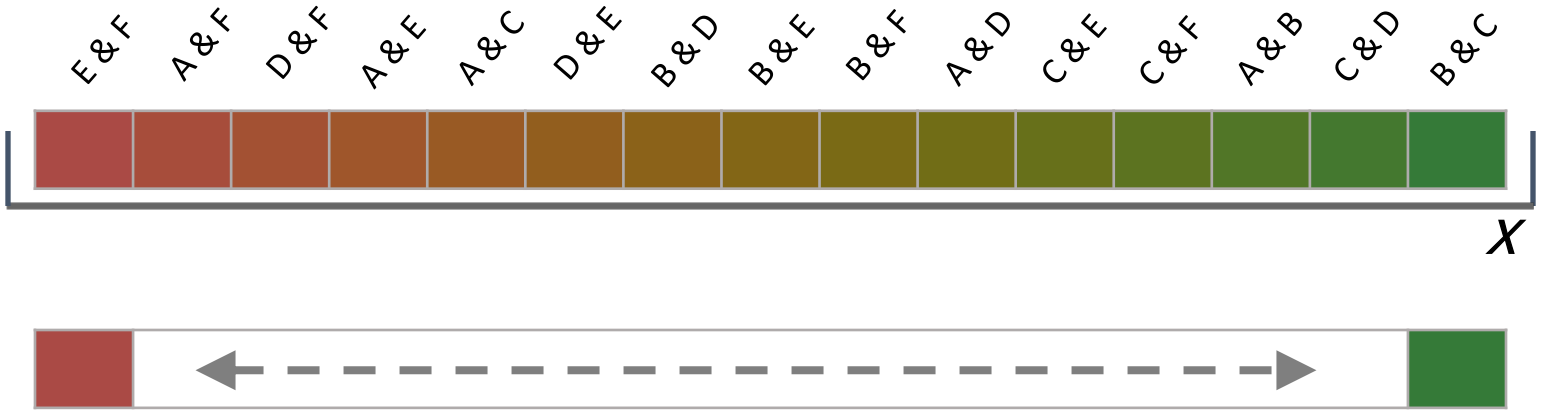
Dimensional reduction



Dimensional reduction



Dimensional reduction



A & B
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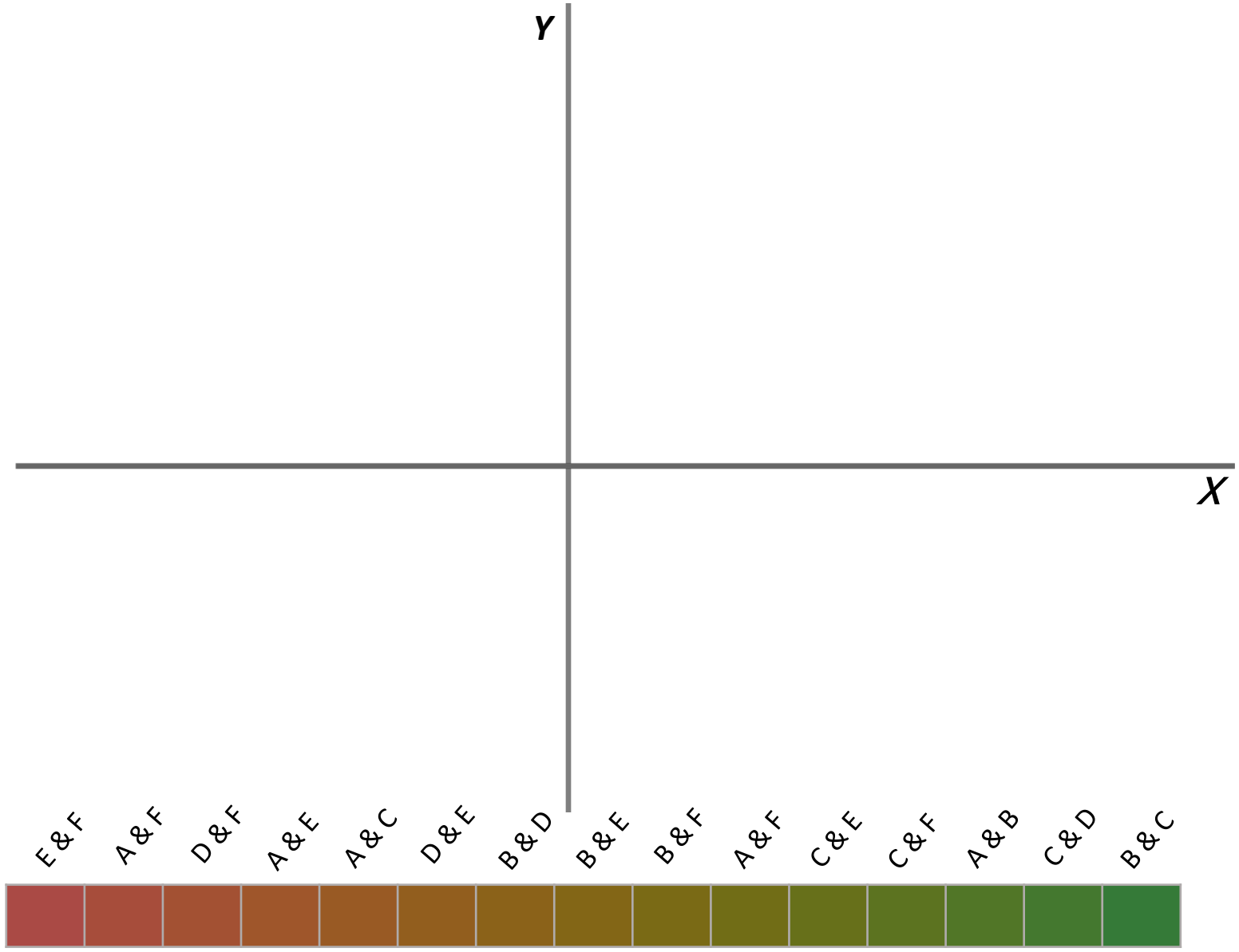
C & D
D & F



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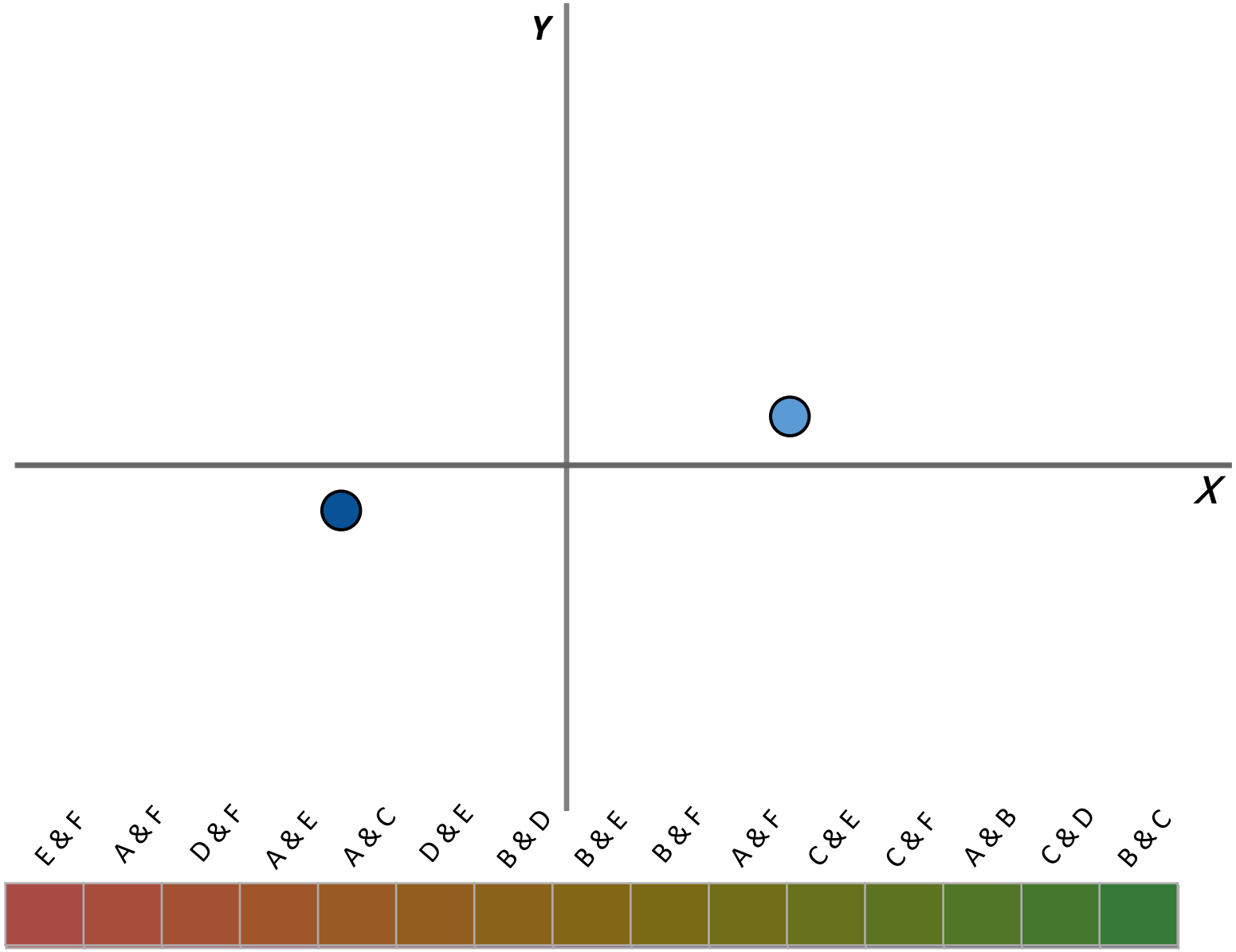

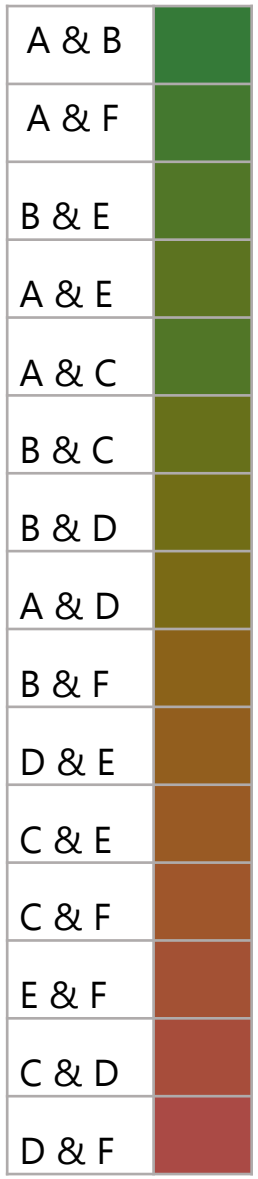
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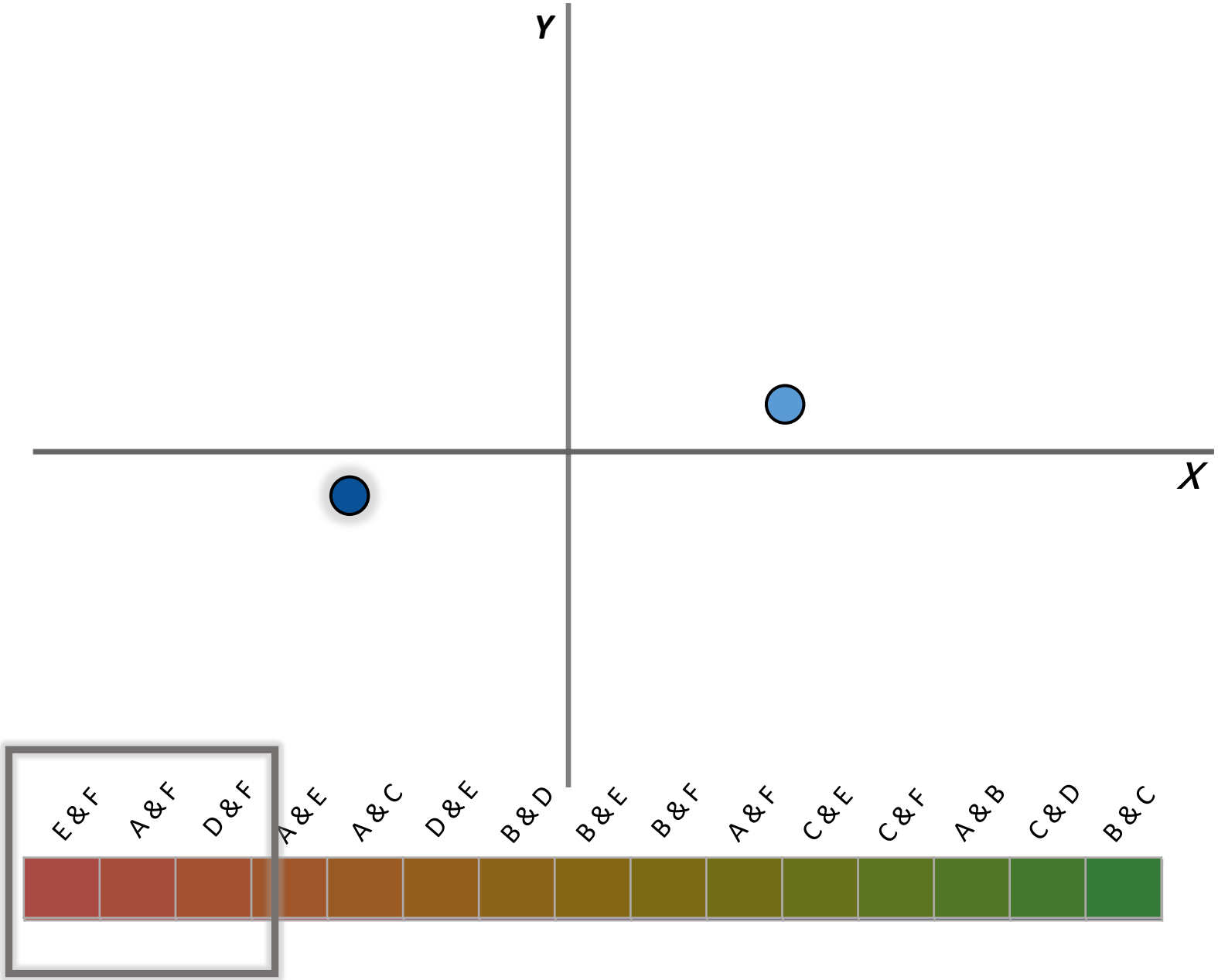
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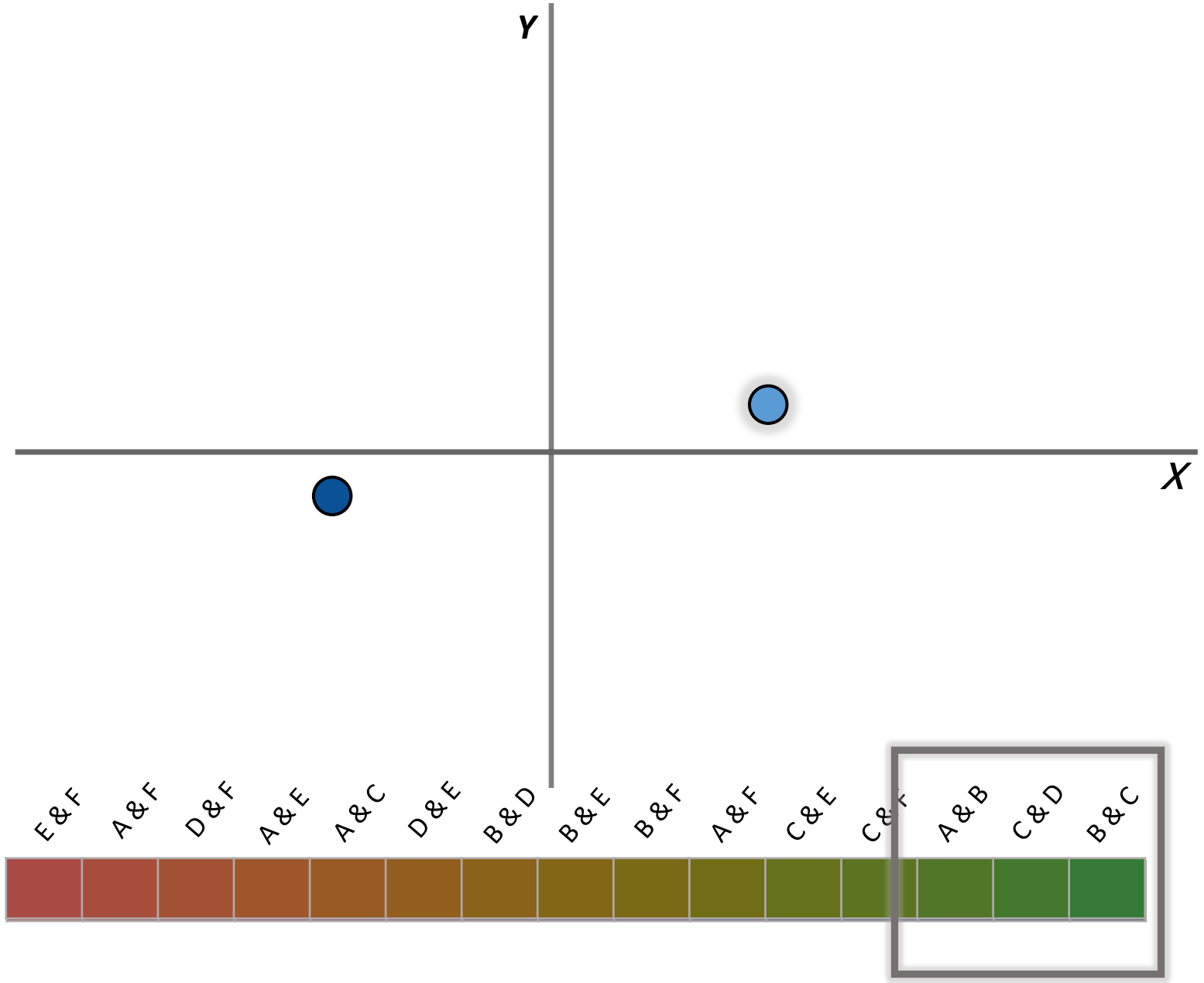

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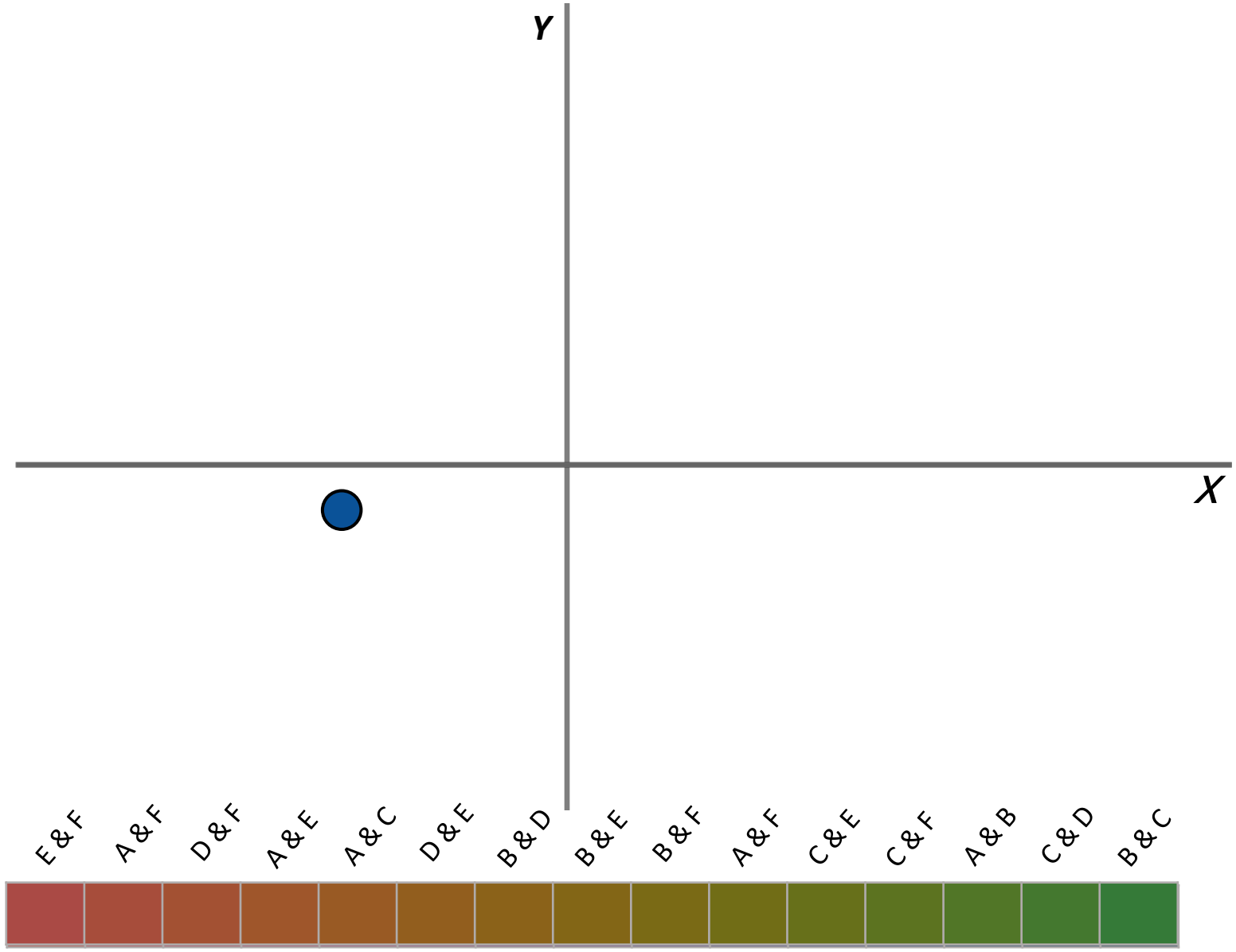

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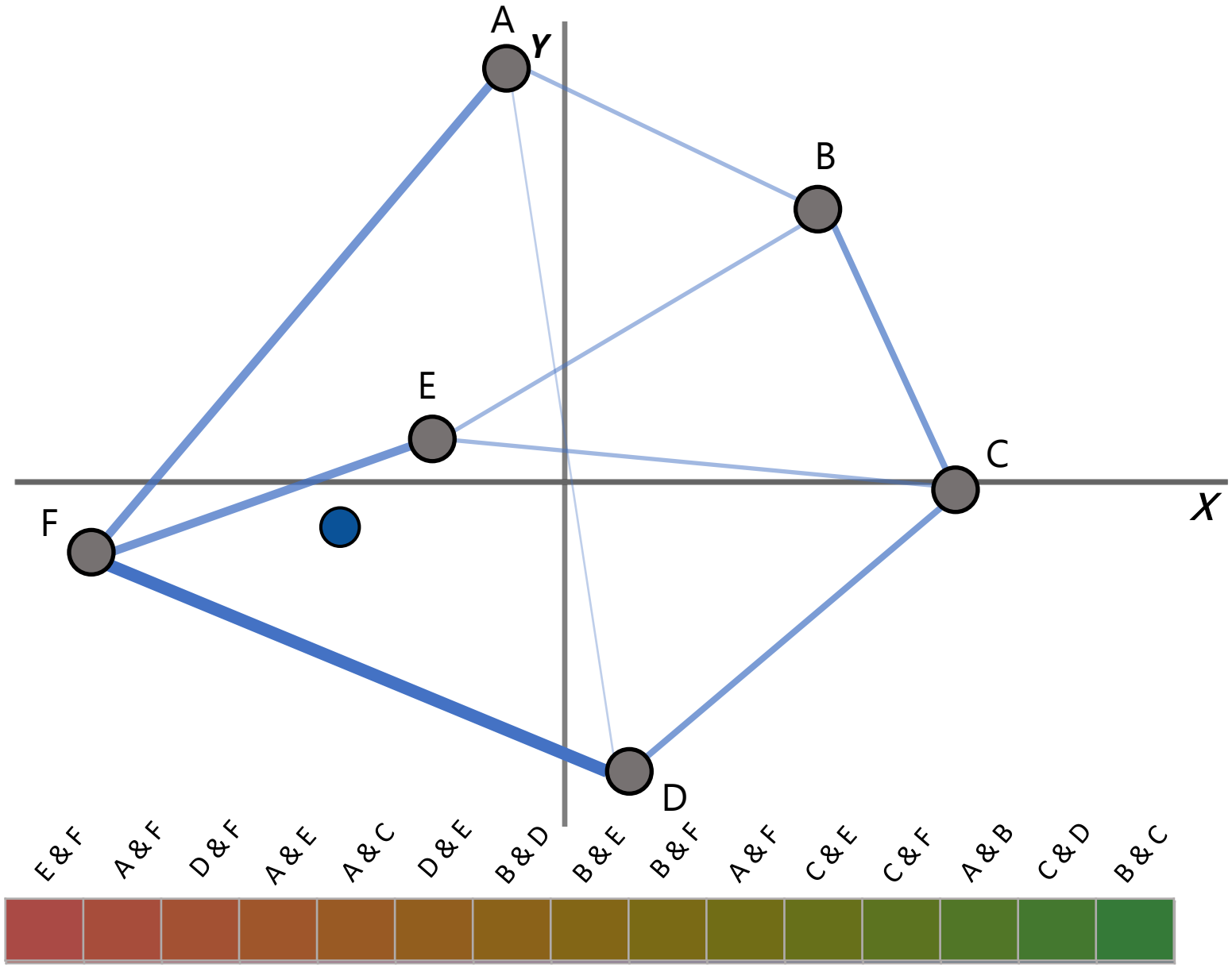

A & B	
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B & E	
A & E	
A & C	
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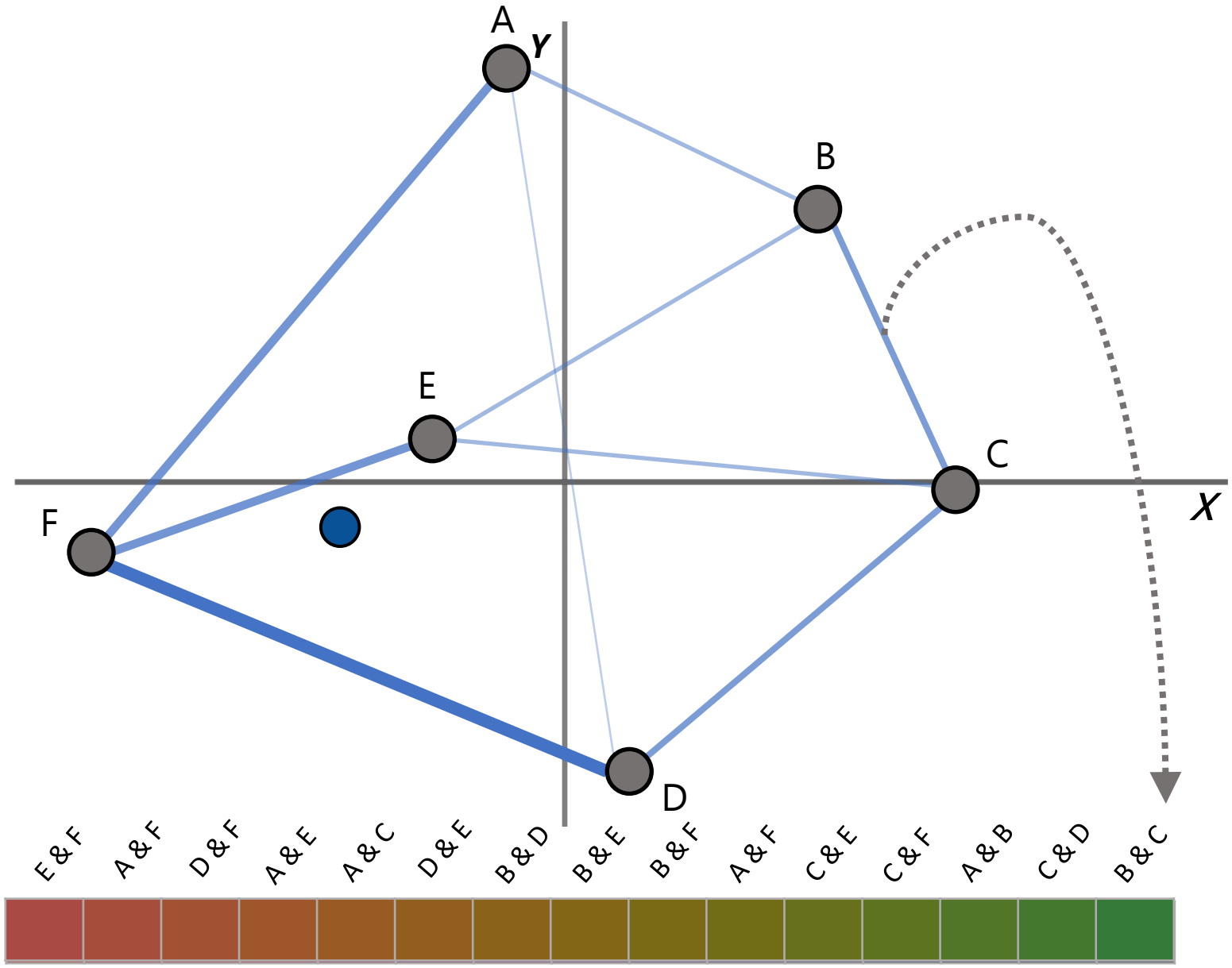
C & D	
D & F	



A & B
A & F
B & E
A & E
A & C
B & C
B & D
A & D
B & F
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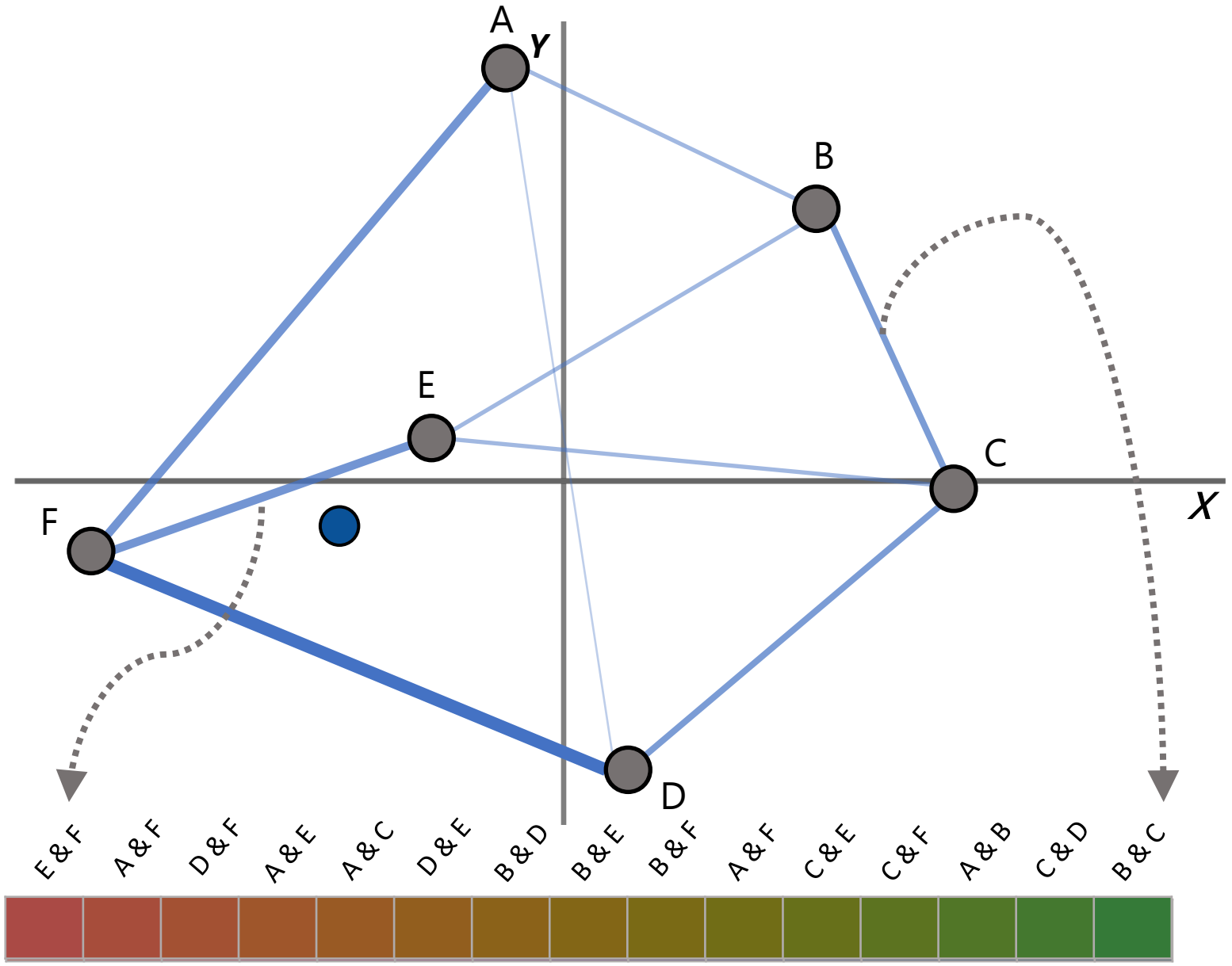
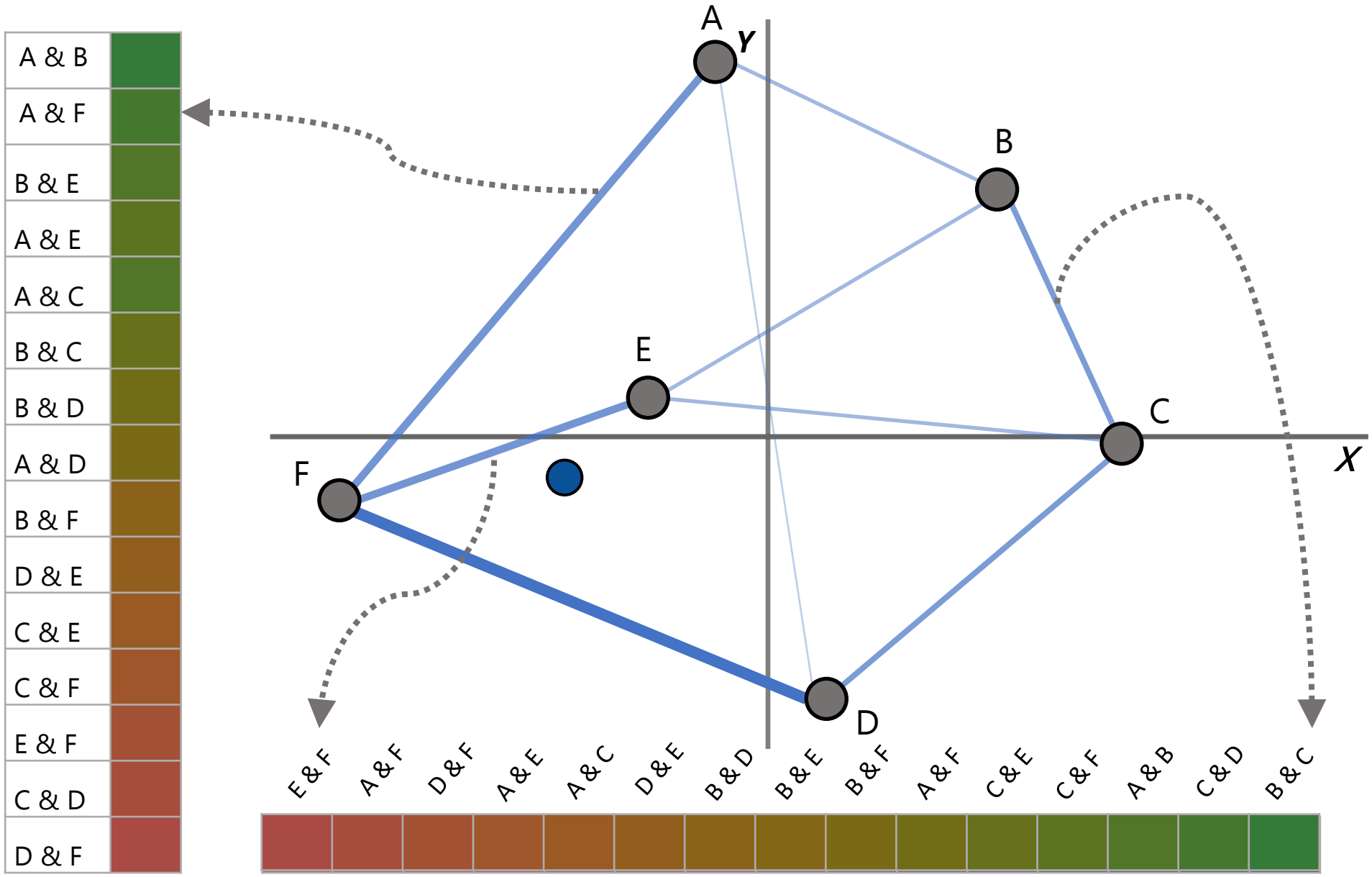
C & D
D & F




A & B
A & F
B & E
A & E
A & C
B & C
B & D
A & D
B & F
D & E
C & E
C & F
E & F
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E&F
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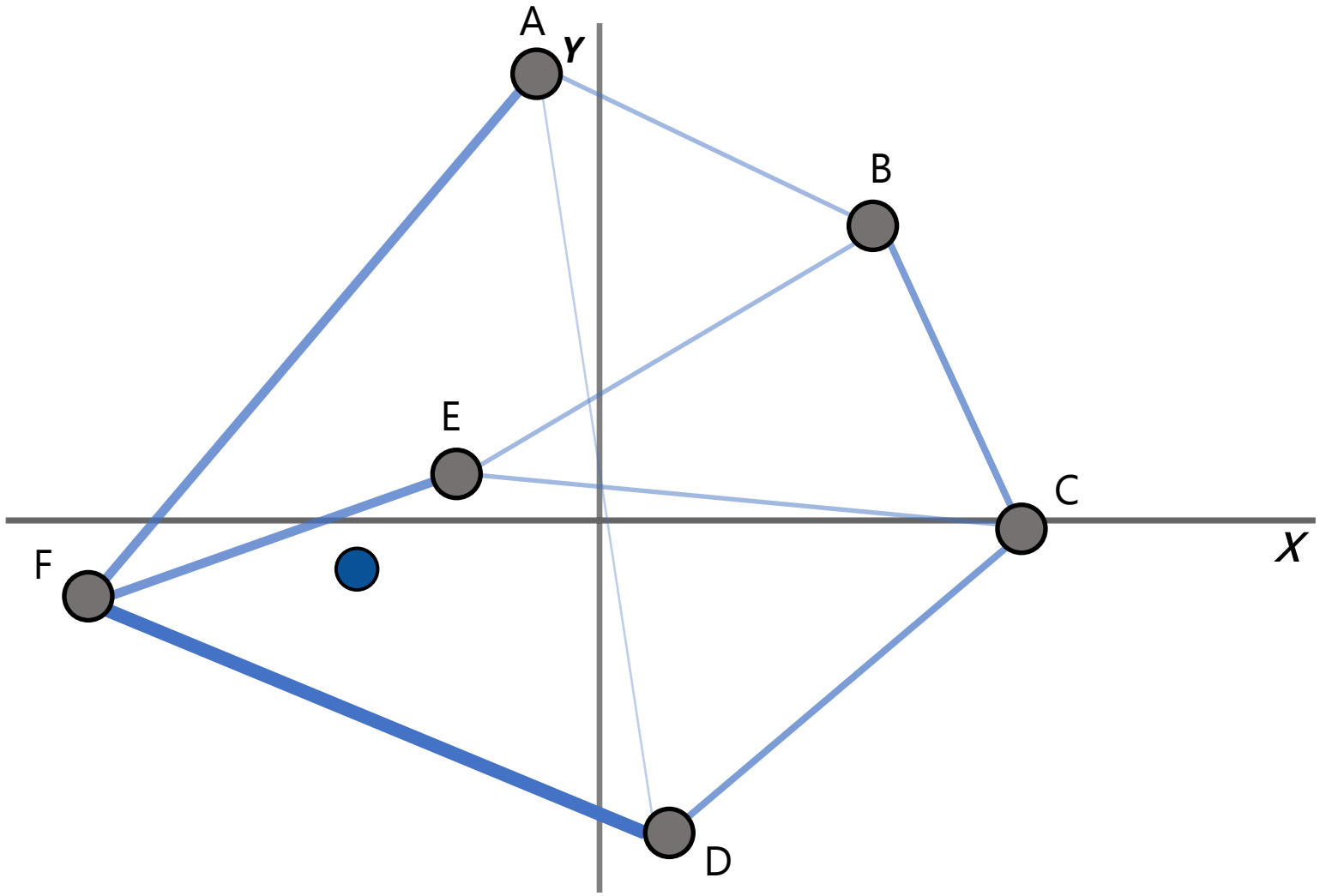
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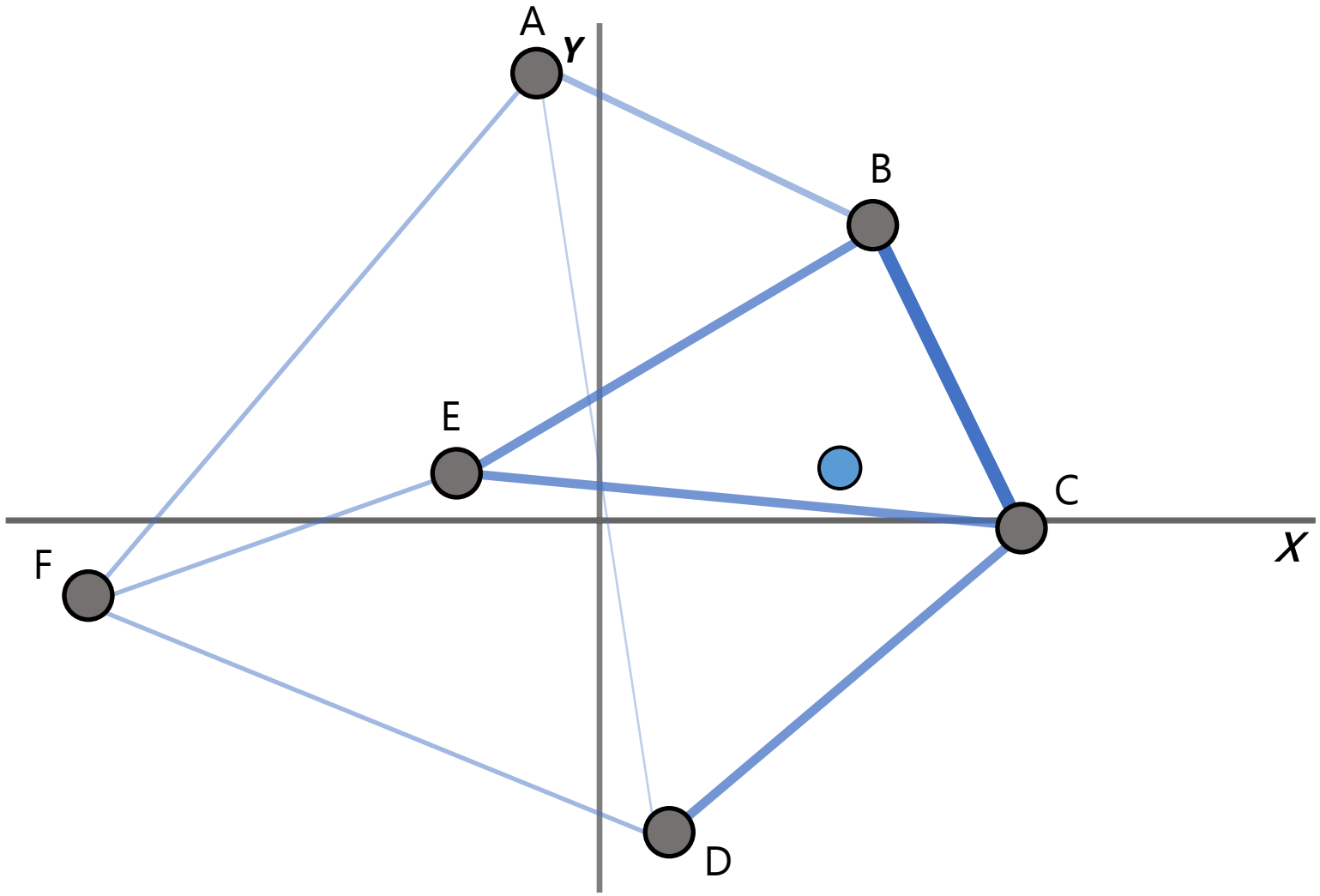
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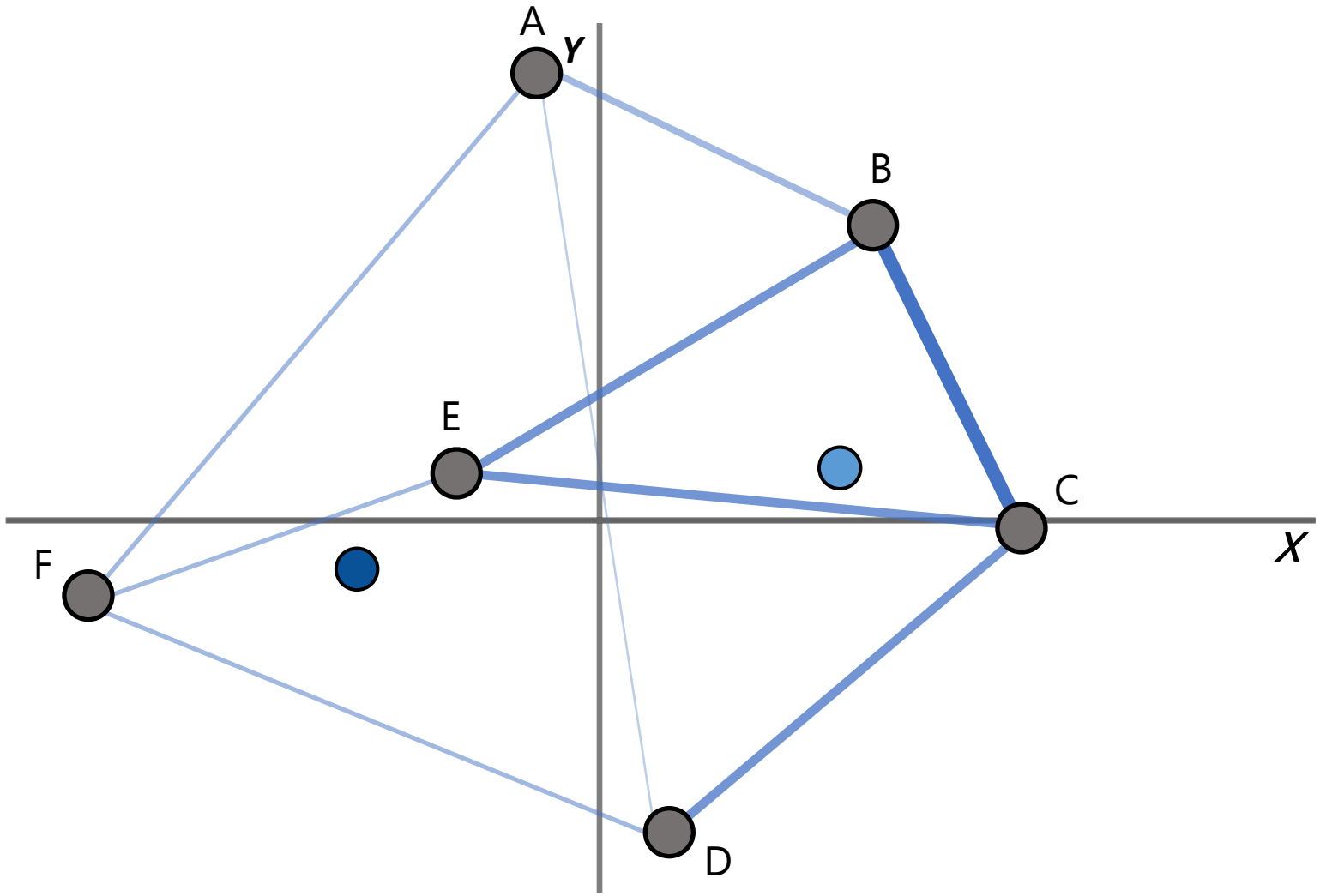
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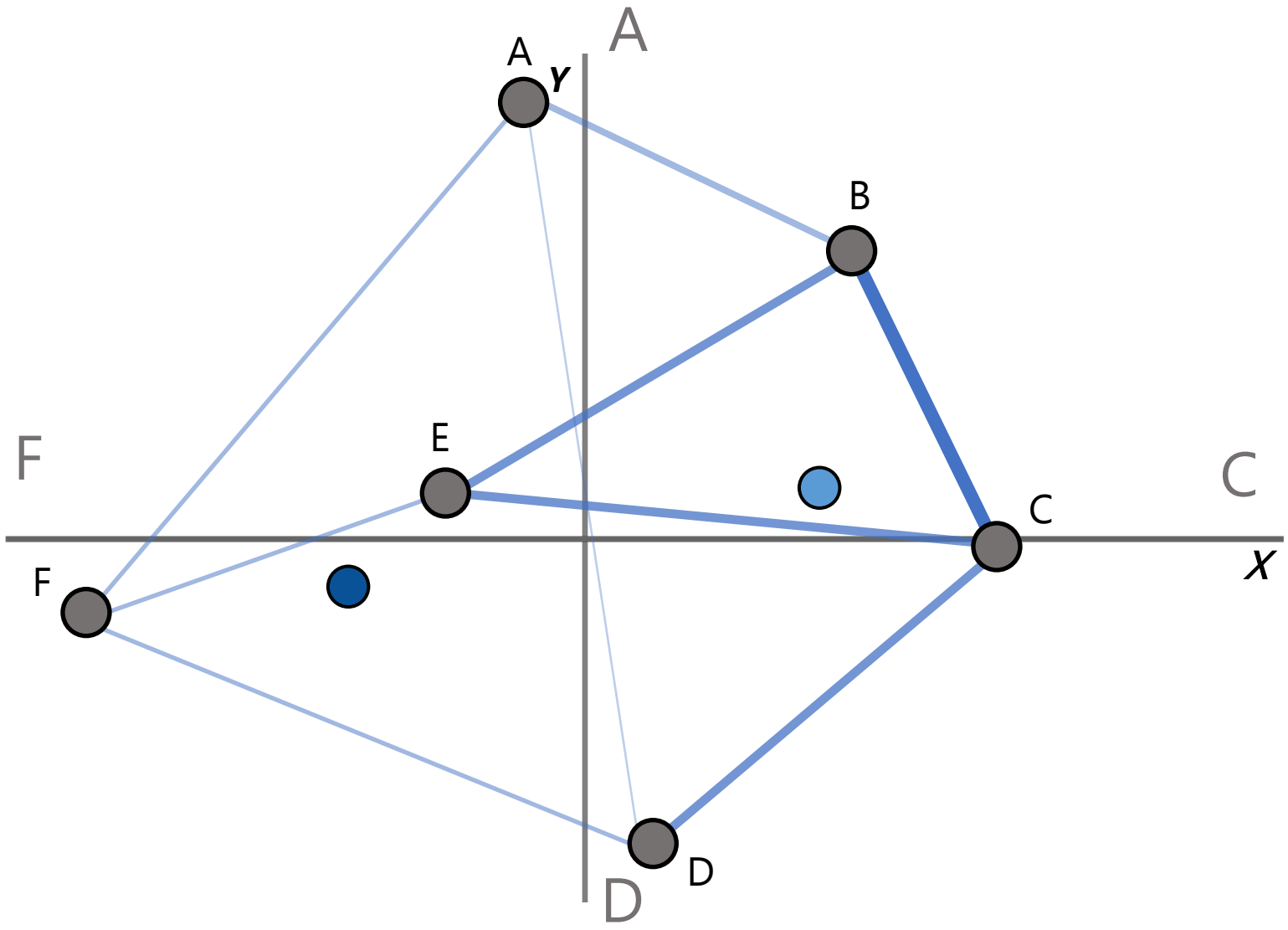
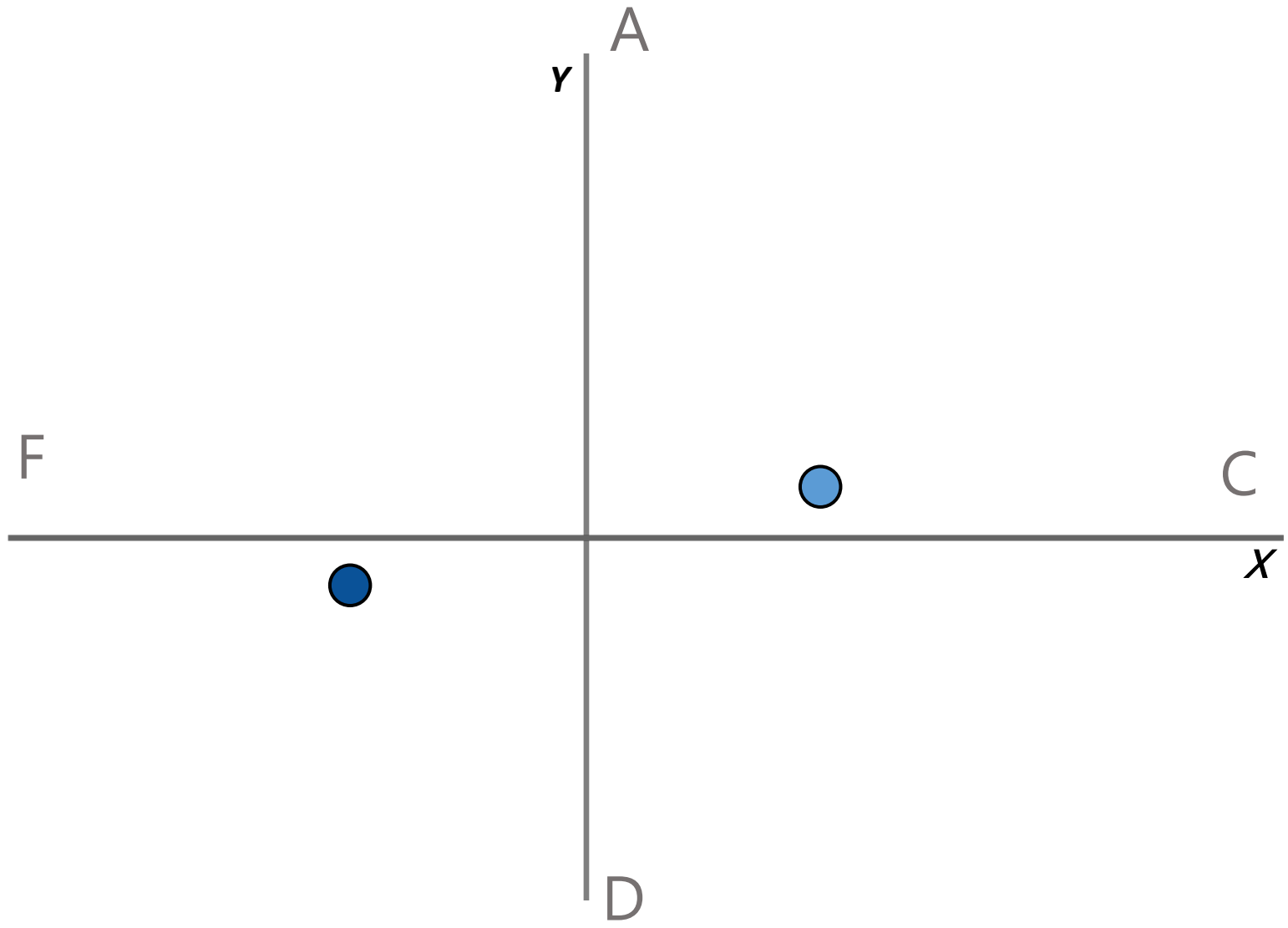

A
A
y
B
F
E
C
C
F
x
D
D


A
Y
F
C
X
D

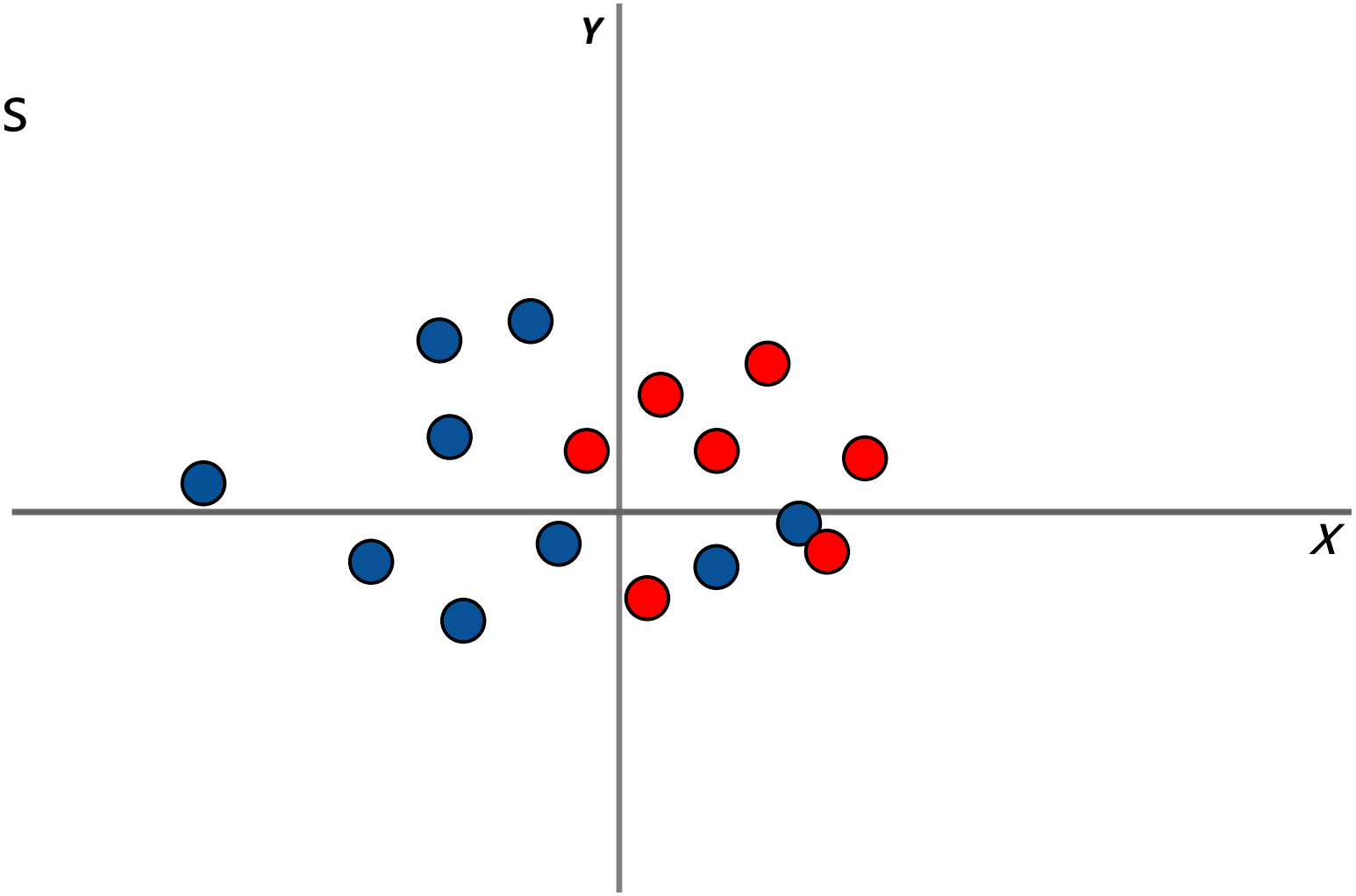
Group comparisons

Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

Group comparisons

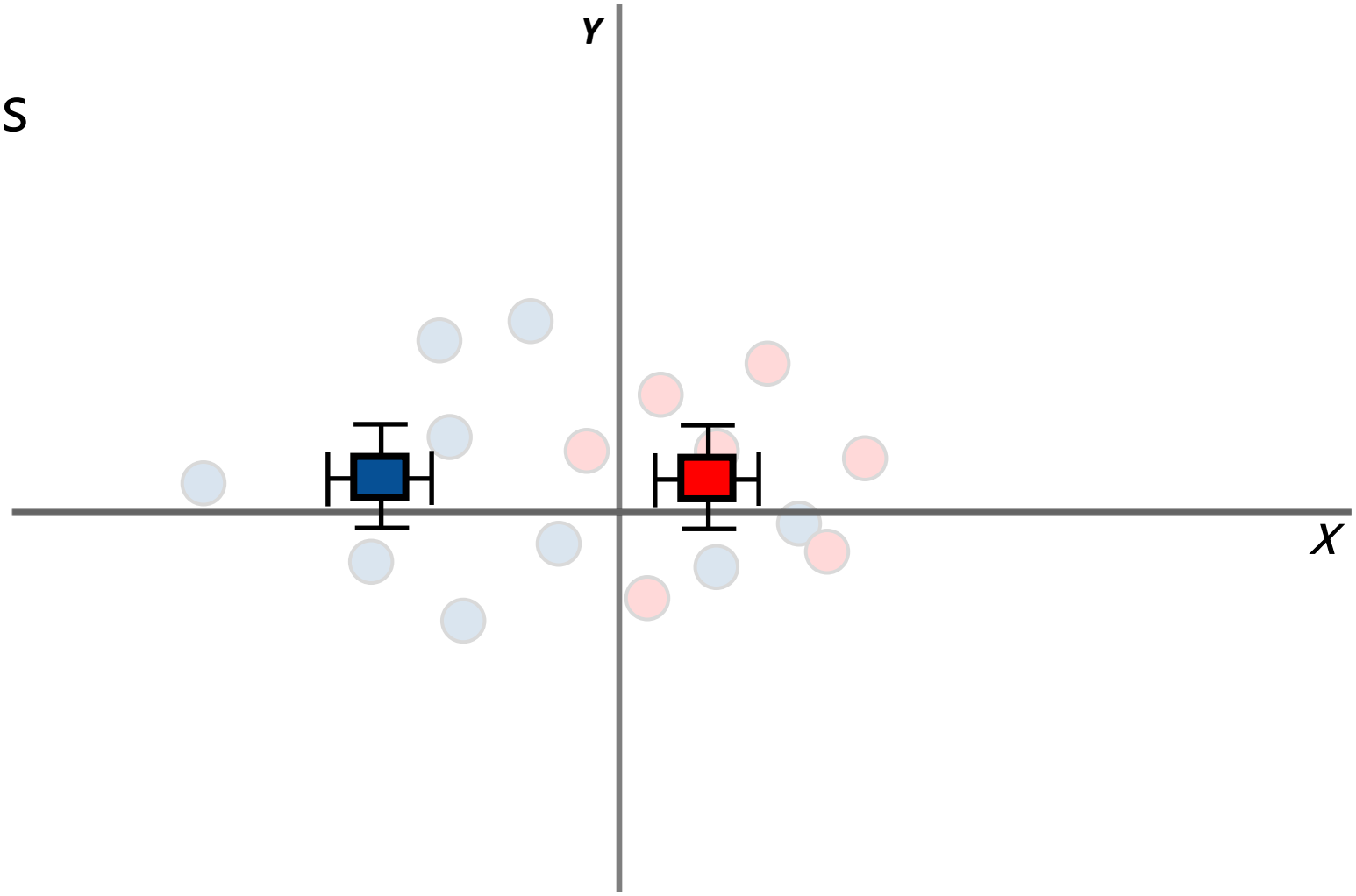
Student	Group	Day	Text	A	B	C	D	E	F
	1	1	Lorem ipsum dolor sit amet, consectetur	1	0	0	0	1	0
	1	1	Donec sit amet urna vitae	0	0	0	0	0	0
	1	1	Aliquam egestas, orci in bibendum pretium,	0	1	0	1	1	1
	1	1	nec vestibulum risus odio	0	0	0	1	0	0
	1	1	congue vitae ex	1	0	1	0	0	0
	2	1	Nullam congue	0	0	0	0	0	0
	2	1	Quisque vel consequat	1	1	0	0	0	1
	2	1	rhoncus ultricies nunc	0	0	0	1	1	0
	2	1	Aliquam pulvinar	0	0	0	1	0	0
	2	1	finibus magna	0	1	0	1	0	1

Group comparisons



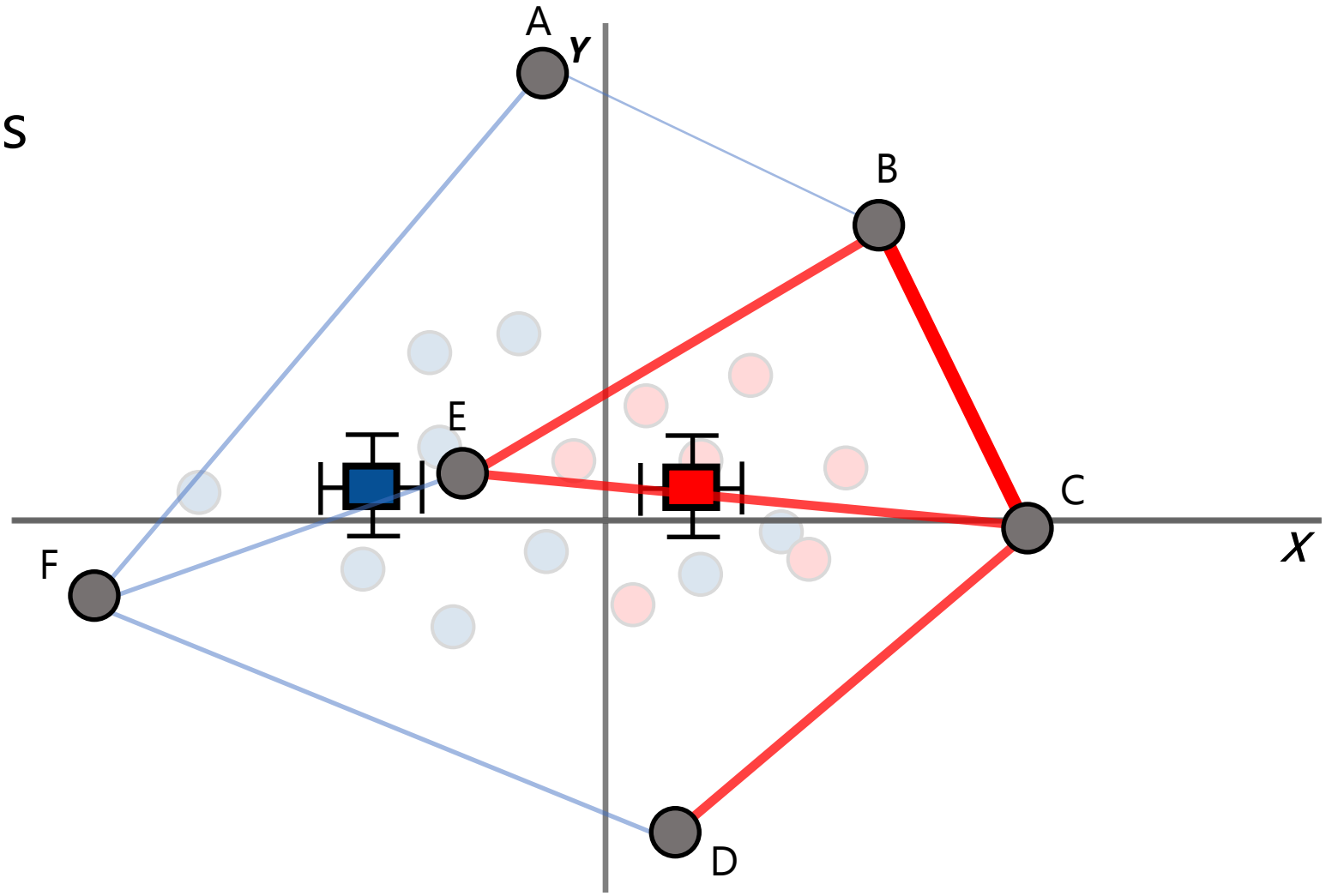
Group comparisons

Means



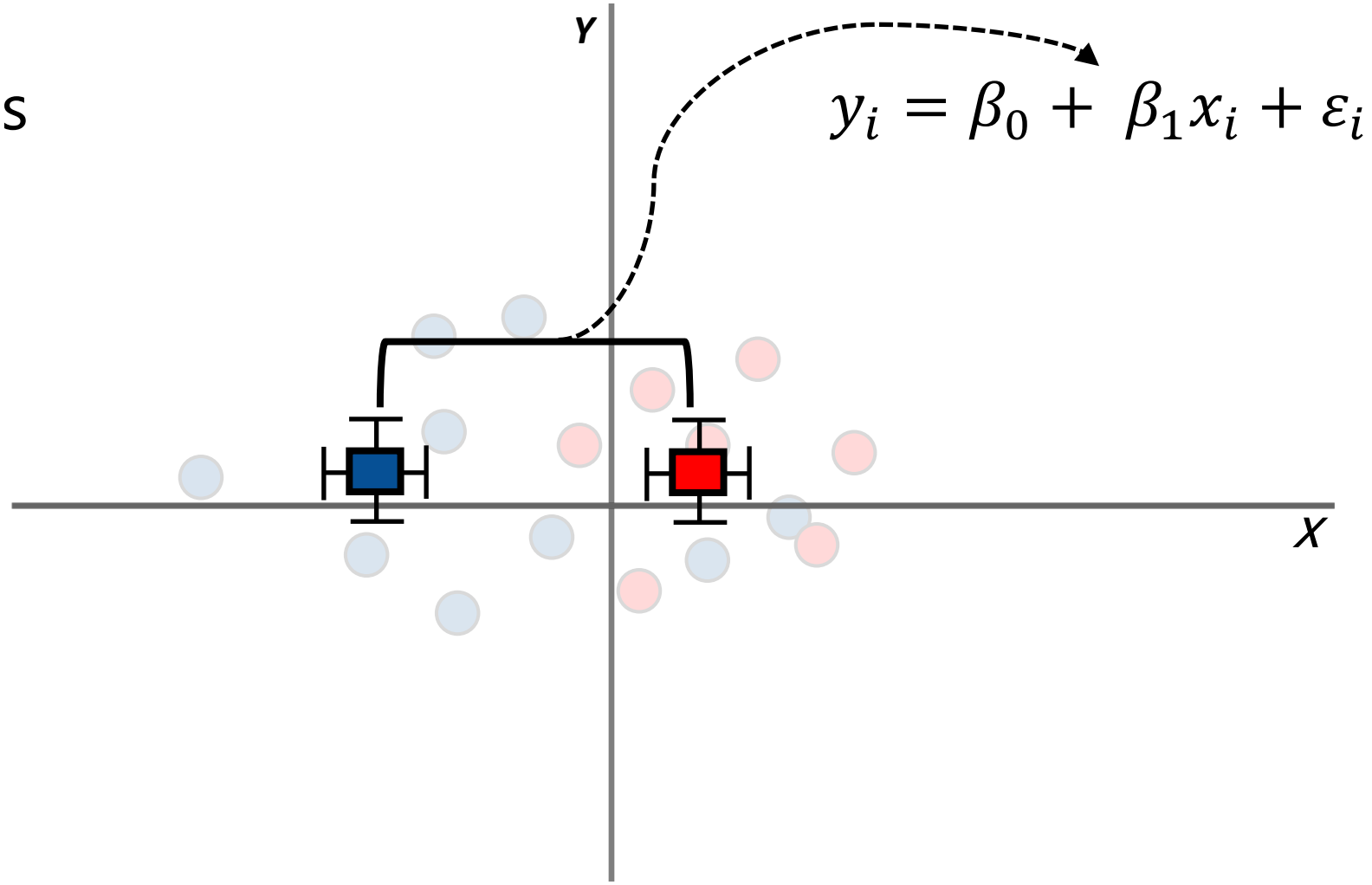
Group comparisons

Network subtractions



Group comparisons

Statistical differences

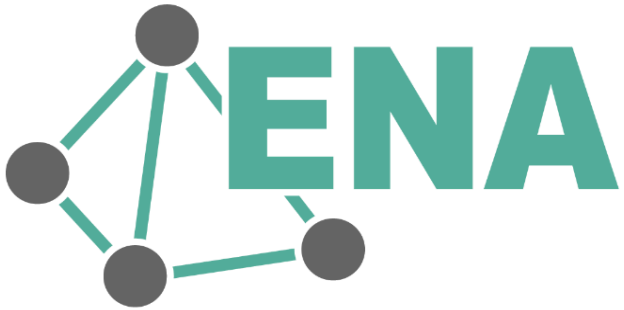


app.epistemicnetwork.org/login.html

Update

library access | ENA Logon Page | Simulation | Stats | Programming | Teaching | UI/UX | ENA | AR/VR | Travel | FIT-Unit-Analysis | Accreditation and... | Writing | GNN

https://www.app.epistemicnetwork.org/



Welcome

Login to your account

Username

Forgot Password?

Password

Login

Sign in with Google

Signup

Username

Email

Password

(Min. 8 characters: 1 uppercase, 1 lowercase, 1 number)

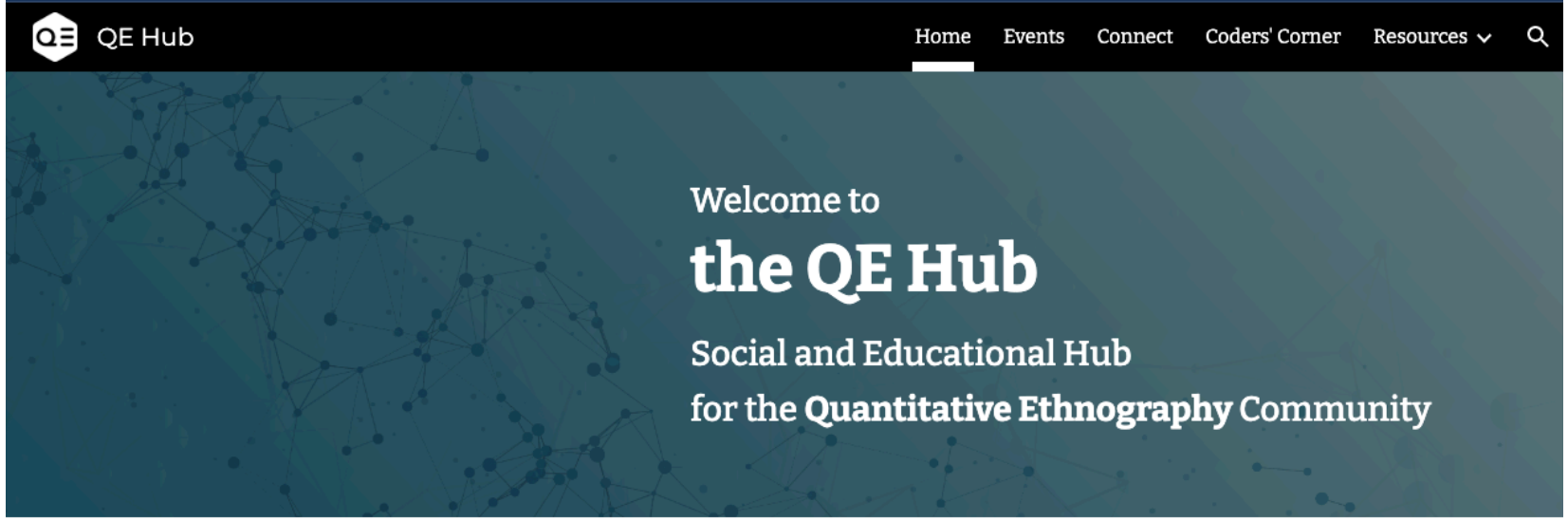
Confirm Password

I would like to receive a periodic ENA newsletter

I agree not to upload data containing personally identifiable information

Sign Up

Info on sample dataset here…



https://www.qehub.org/

Welcome

This website is dedicated to scaffolding your work with Quantitative Ethnographic methods and tools, whether you are new to Quantitative Ethnography (QE) or are an experienced QE scholar. If you'd like to read up on the latest QE papers or find out about community events, this is the place for you!

Events Highlights

ICQE '23 is approaching!

October 8-12, 2023
Visit the website!

QE Sandbox

Friday, Apr. 21, 2023
11am CST / 6pm CET
Registration soon!

Introduction to the Epistemic Networ…

Welcome

Download sample data set

Log in to the web tool

1 Data formatting and uploading

1.1 Formatting your data

1.2 Uploading the data

2 ENA webtool: Units

2.1 Unit selection in the manual m…

2.2 Why might you want to use m…

2.3 Does the order in selecting m…

2.4 Means options

2.5 Hide/unhide units

2.6 Exclude/include units

2.7 Create sample

2.8 Change units colour

2.9 Advanced units options

3 Conversations

3.1 Conversations selection in the…

3.2 Exclude/include conversations

3.3 Stanza selection

4 Codes

4.1 Display of binary and / or num…

4.2 Exclude/include codes

4.3 Hide/unhide codes

4.4 Highlighting and unhighlightin…

4.5 Use rotation matrix

4.6 Weighted model

4.7 Node positioning

4.8 Code Masking

https://www.qehub.org/

Epistemic Network Analysis Web Tool User Guide

Welcome

This is the website for **Epistemic Network Analysis Web Tool User Guide**. This user guide demonstrates how to conduct an Epistemic Network Analysis (ENA) using the ENA web tool. Topics covered in this user guide include how to format data, upload data, construct an ENA model, perform statistical analysis, understand ENA visualizations, and interpret ENA model.

Before you dive into this user guide, please keep in mind that this user guide is designed with a focus on **utilizing the web tool itself**, instead of discussing the theories and mathematical details of ENA in depth. In other words, this user guide will show you hands-on instructions on navigating the web tool to build an ENA model, but might not be the best resource for you to learn theoretical knowledge that are relevant to ENA.

Therefore, if you are interested in using the web tool but have very limited knowledge on key concepts such as units, codes, conversation, reading this user guide alone might not be sufficient. We would suggest that you refer to some more theoretical focused resources besides reading this user guide. You could start by exploring resources on this page.

During your learning processes, feel free to take notes of any confusions you might have and feel free to contact isqerc@gmail.com with your questions.

Download sample data set

The examples and analyses demonstrated in this user guide are based on the Shakespeare data set, which can be downloaded using this link: https://www.qesoc.org/coded-datasets/

Thank you!

Email: zach.swiecki@monash.edu
Twitter: @zlswiecki
Google Scholar: https://scholar.google.com/citations?user=HSdHD5UAAAAJ&hl=en
Monash: https://research.monash.edu/en/persons/zachari-swiecki