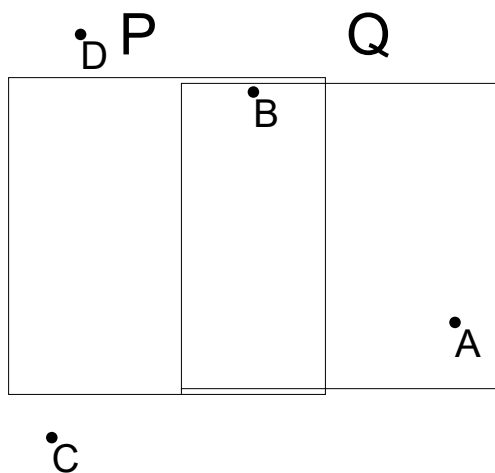


Kvantifikatorja in izjavne povezave

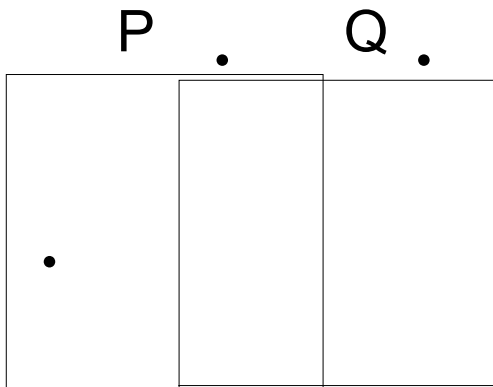
Naloga zahteva, da poiščemo vrednosti izjav v dani situaciji. Točke so individui pogovornega področja. Izjava $P(X)$ je resnična, če je točka X znotraj kvadrata, označenega s P . Enako velja tudi za Q .

naloga z rešitvijo



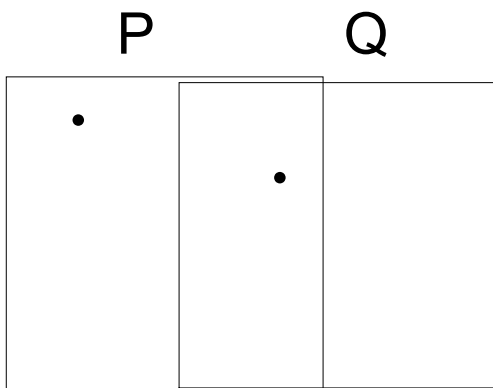
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$\forall xQ(x)$	0
$\exists xQ(x)$	1
$\exists x(P(x) \wedge Q(x))$	1
$\exists xP(x) \wedge \exists xQ(x)$	1
$\exists x(P(x) \vee Q(x))$	1
$\exists xP(x) \vee \exists xQ(x)$	1
$\exists x(P(x) \Rightarrow Q(x))$	1
$\exists xP(x) \Rightarrow \exists xQ(x)$	1
$\exists x(P(x) \Leftrightarrow Q(x))$	1
$\exists xP(x) \Leftrightarrow \exists xQ(x)$	1
$\forall x(P(x) \wedge Q(x))$	0
$\forall xP(x) \wedge \forall xQ(x)$	0
$\forall x(P(x) \vee Q(x))$	0
$\forall xP(x) \vee \forall xQ(x)$	0
$\forall x(P(x) \Rightarrow Q(x))$	1
$\forall xP(x) \Rightarrow \forall xQ(x)$	1
$\forall x(P(x) \Leftrightarrow Q(x))$	0
$\forall xP(x) \Leftrightarrow \forall xQ(x)$	1
$\exists x(P(x) \Rightarrow \forall xQ(x))$	1
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$\forall x(P(x) \Rightarrow \exists xQ(x))$	1

1.



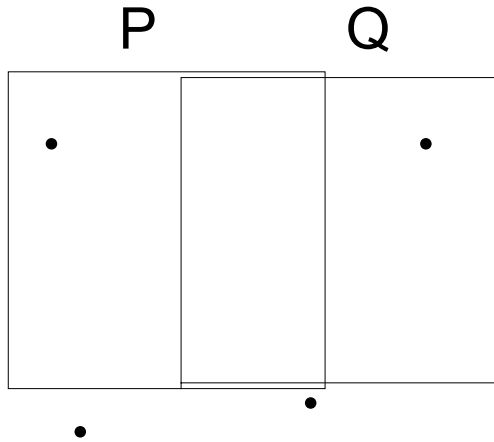
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$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x P(x))$	
$\exists x (Q(x) \Rightarrow \exists x Q(x))$	

2.



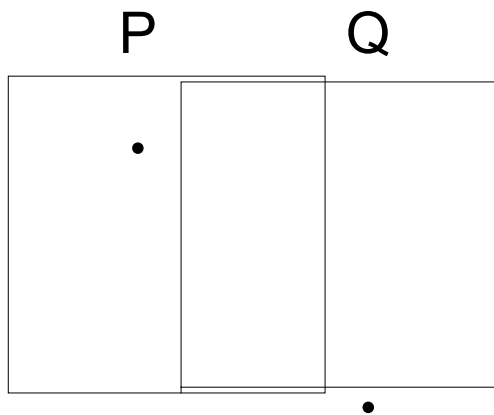
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$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
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$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
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$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
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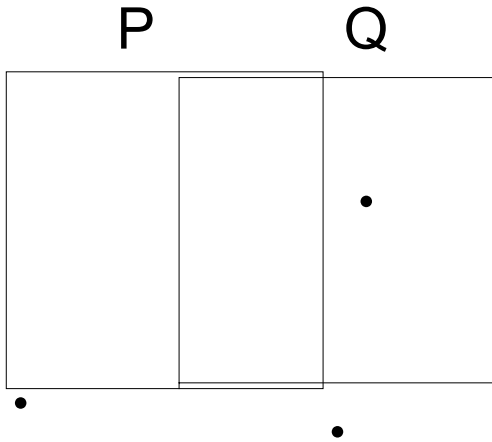
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$\exists x (P(x) \vee Q(x))$	
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$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
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$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
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$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x P(x))$	
$\exists x (P(x) \Rightarrow \exists x Q(x))$	

4.



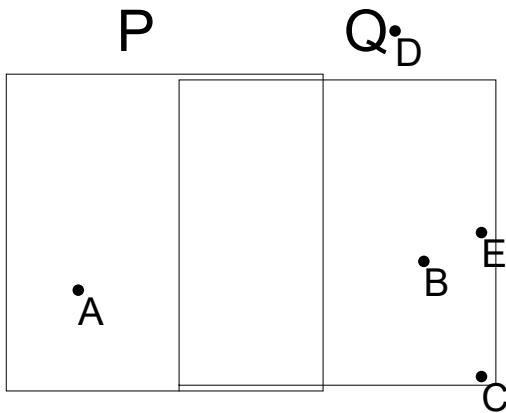
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$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
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$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
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$\forall x P(x) \vee \forall x Q(x)$	
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$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \forall x P(x))$	
$\forall x (P(x) \Rightarrow \exists x Q(x))$	

5.



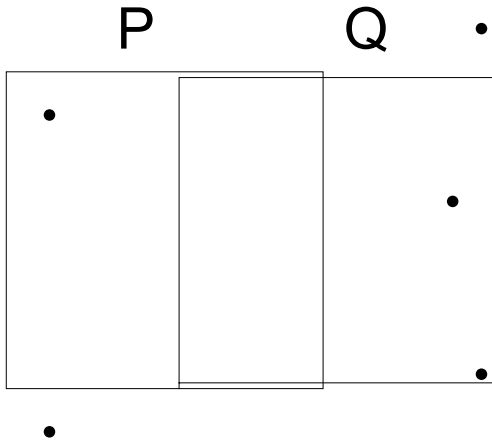
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$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
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$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
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6.



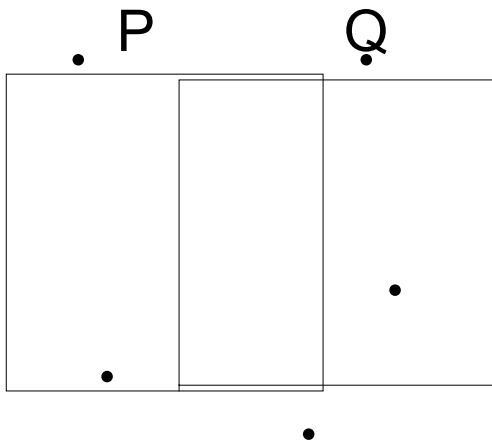
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$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
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7.



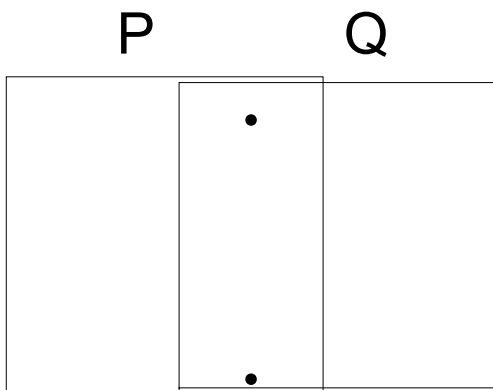
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$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
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8.



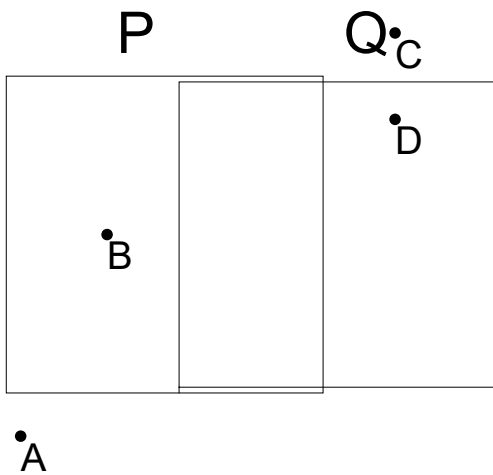
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$\forall x (P(x) \Rightarrow \exists x Q(x))$	

9.



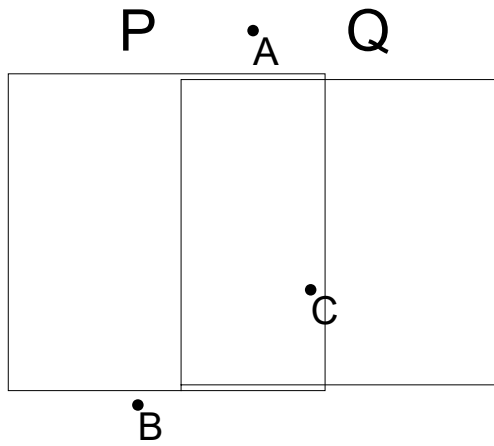
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$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
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$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
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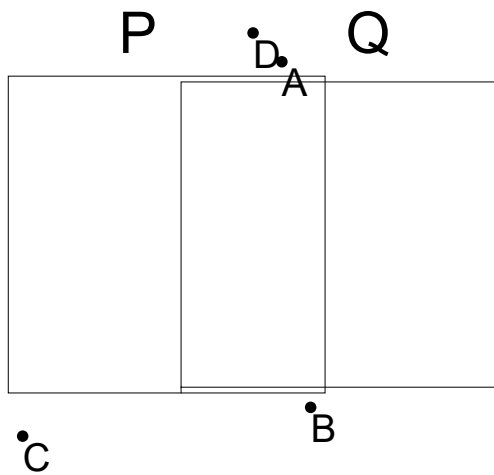
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$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
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$\exists x (P(x) \Leftrightarrow Q(x))$	
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11.



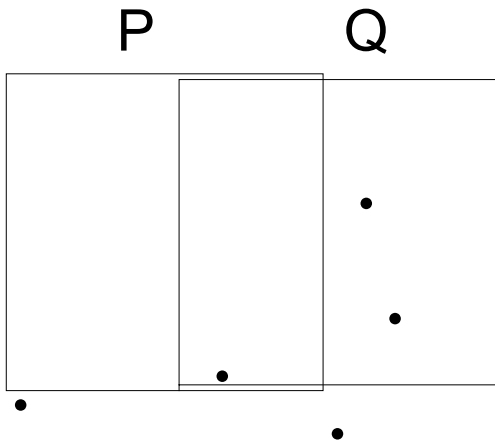
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$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
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$\exists x (P(x) \Rightarrow \exists x Q(x))$	

12.



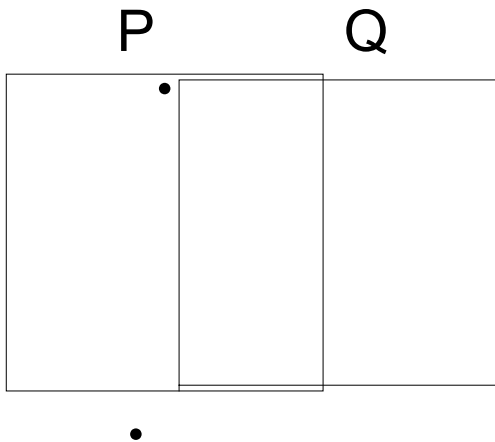
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$\forall x (P(x) \Rightarrow \exists x Q(x))$	

13.



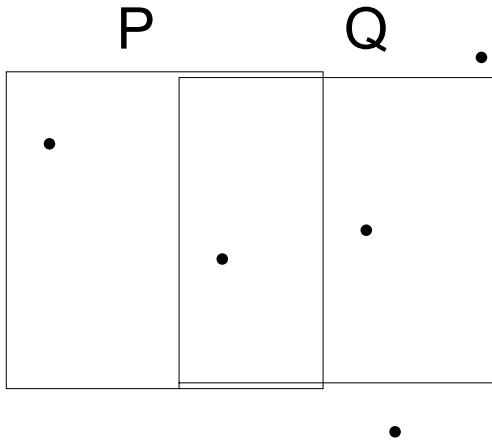
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$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
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14.



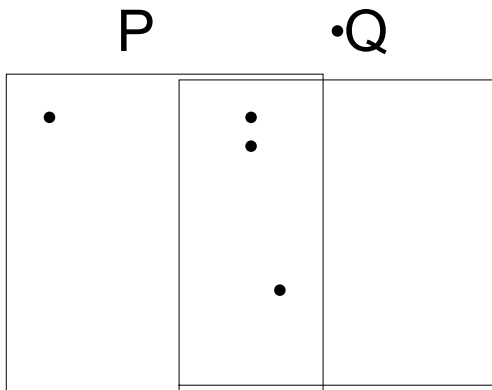
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$\forall x Q(x)$	
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$\forall x (P(x) \Rightarrow \exists x Q(x))$	

15.



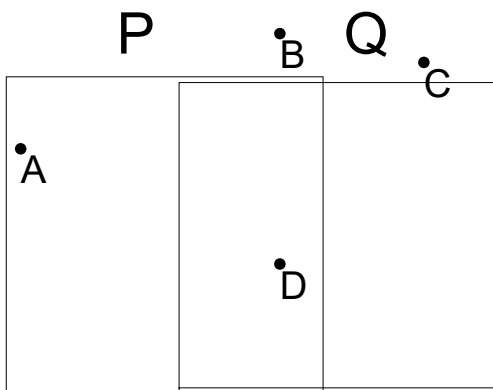
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$\forall x Q(x)$	
$\exists x Q(x)$	
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$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x Q(x))$	
$\exists x (P(x) \Rightarrow \forall x P(x))$	
$\exists x (P(x) \Rightarrow \exists x Q(x))$	

16.



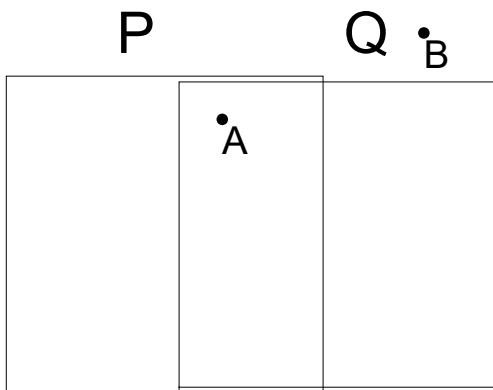
$\forall x P(x)$	
$\exists x P(x)$	
$\forall x Q(x)$	
$\exists x Q(x)$	
$\exists x (P(x) \wedge Q(x))$	
$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x P(x))$	
$\forall x (P(x) \Rightarrow \exists x Q(x))$	

17.



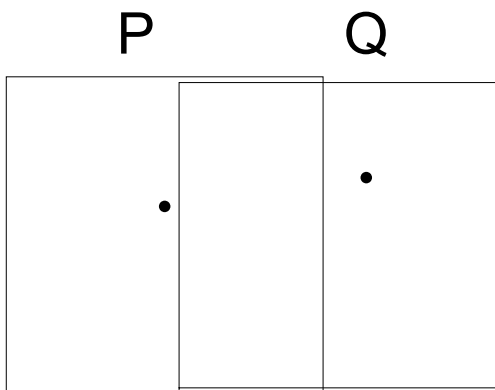
$\forall x P(x)$	
$\exists x P(x)$	
$\forall x Q(x)$	
$\exists x Q(x)$	
$\exists x (P(x) \wedge Q(x))$	
$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x P(x))$	
$\exists x (P(x) \Rightarrow \exists x Q(x))$	

18.



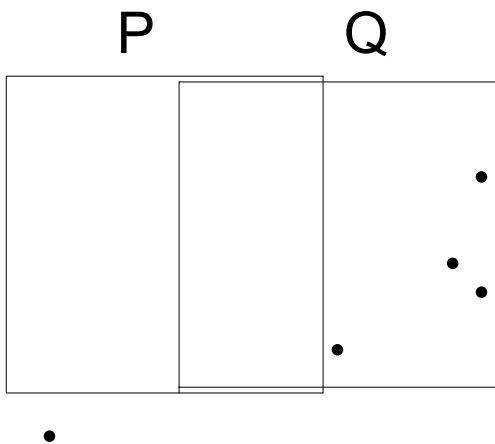
$\forall x P(x)$	
$\exists x P(x)$	
$\forall x Q(x)$	
$\exists x Q(x)$	
$\exists x (P(x) \wedge Q(x))$	
$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \forall x P(x))$	
$\forall x (P(x) \Rightarrow \exists x Q(x))$	

19.



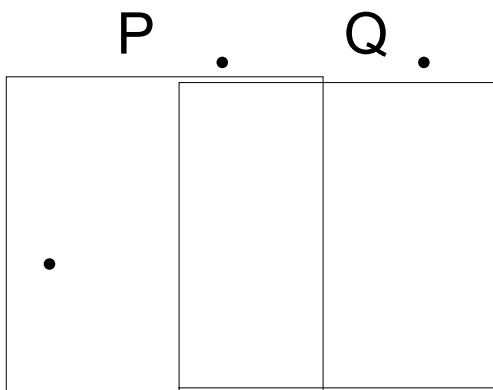
$\forall x P(x)$	
$\exists x P(x)$	
$\forall x Q(x)$	
$\exists x Q(x)$	
$\exists x (P(x) \wedge Q(x))$	
$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x Q(x))$	
$\exists x (P(x) \Leftrightarrow \exists x Q(x))$	

20.



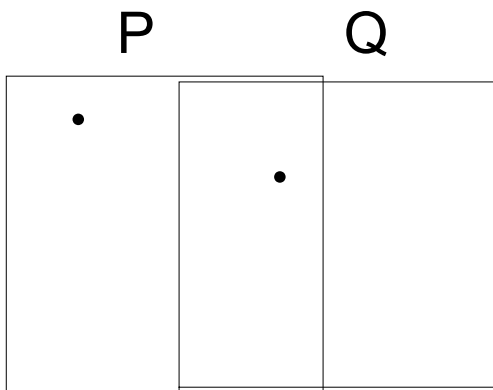
$\forall x P(x)$	
$\exists x P(x)$	
$\forall x Q(x)$	
$\exists x Q(x)$	
$\exists x (P(x) \wedge Q(x))$	
$\exists x P(x) \wedge \exists x Q(x)$	
$\exists x (P(x) \vee Q(x))$	
$\exists x P(x) \vee \exists x Q(x)$	
$\exists x (P(x) \Rightarrow Q(x))$	
$\exists x P(x) \Rightarrow \exists x Q(x)$	
$\exists x (P(x) \Leftrightarrow Q(x))$	
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	
$\forall x (P(x) \wedge Q(x))$	
$\forall x P(x) \wedge \forall x Q(x)$	
$\forall x (P(x) \vee Q(x))$	
$\forall x P(x) \vee \forall x Q(x)$	
$\forall x (P(x) \Rightarrow Q(x))$	
$\forall x P(x) \Rightarrow \forall x Q(x)$	
$\forall x (P(x) \Leftrightarrow Q(x))$	
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	
$\exists x (P(x) \Rightarrow \forall x Q(x))$	
$\exists x (P(x) \Rightarrow \exists x Q(x))$	
$\exists x (P(x) \Leftrightarrow \exists x Q(x))$	

1.



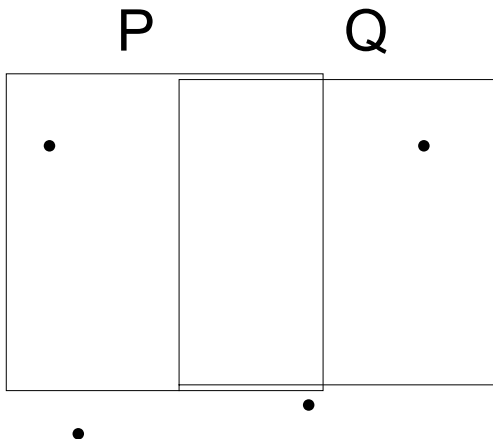
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	0
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	0
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	0
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	0
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	0

2.



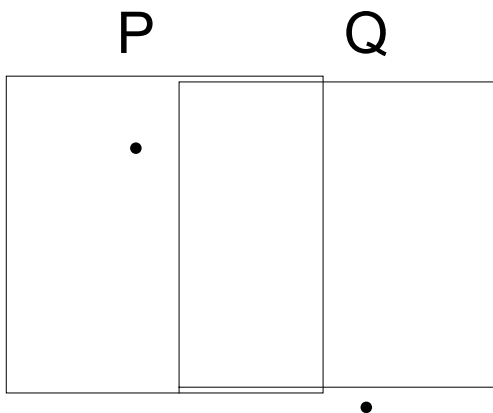
$\forall x P(x)$	1
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	1
$\forall x P(x) \vee \forall x Q(x)$	1
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	0
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	0
$\exists x (P(x) \Rightarrow \forall x Q(x))$	0
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

3.



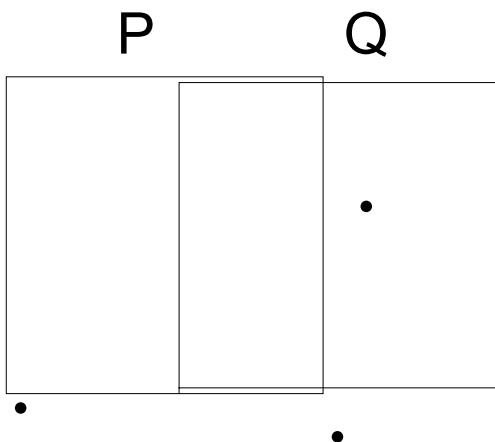
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

4.



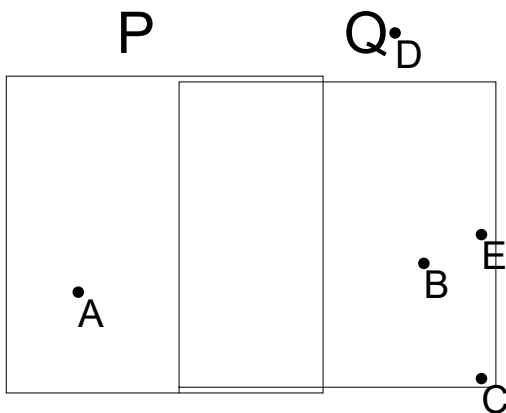
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	0
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	0
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	0
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	0
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	0

5.



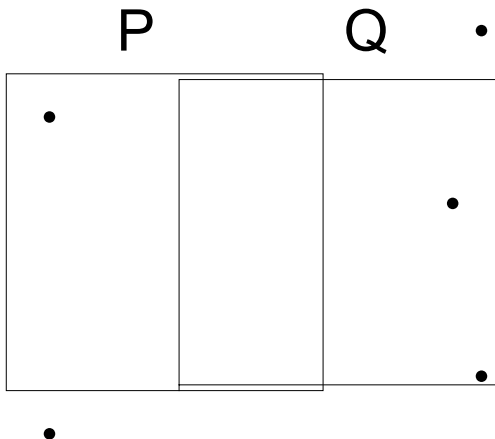
$\forall x P(x)$	0
$\exists x P(x)$	0
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	0
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	0
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$(\exists x Q(x) \Rightarrow P(x)) \wedge \forall x Q(x)$	1

6.



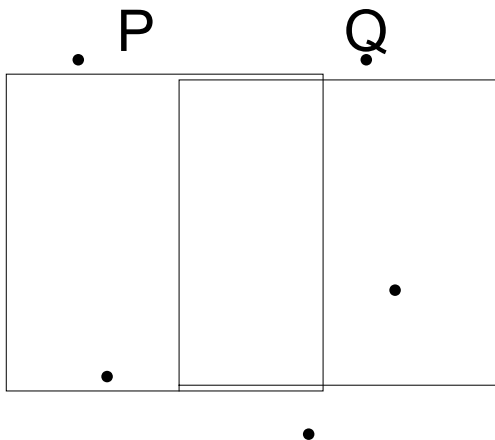
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

7.



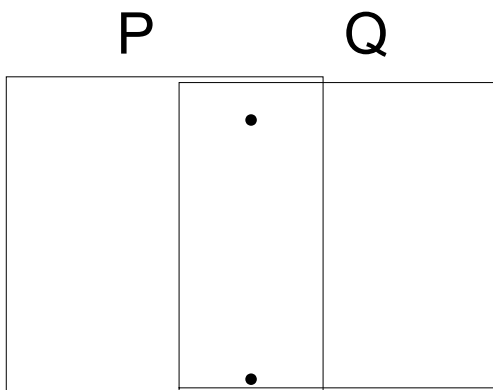
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x \neg Q(x)$	0
$\exists x \neg Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

8.



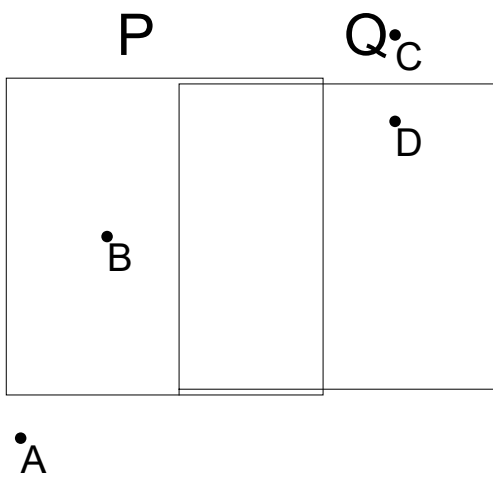
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x \neg Q(x)$	0
$\exists x \neg Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

9.



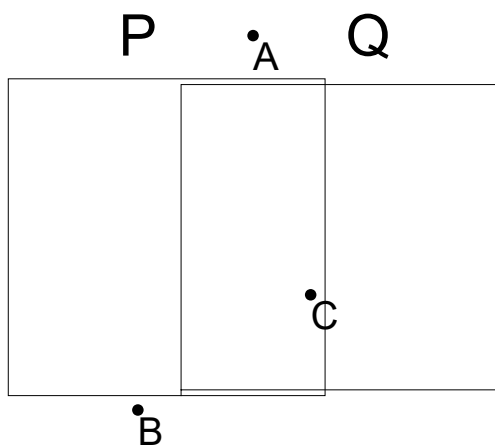
$\forall x P(x)$	1
$\exists x P(x)$	1
$\forall x \neg Q(x)$	1
$\exists x \neg Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	1
$\forall x P(x) \wedge \forall x Q(x)$	1
$\forall x (P(x) \vee Q(x))$	1
$\forall x P(x) \vee \forall x Q(x)$	1
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	1
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

10.



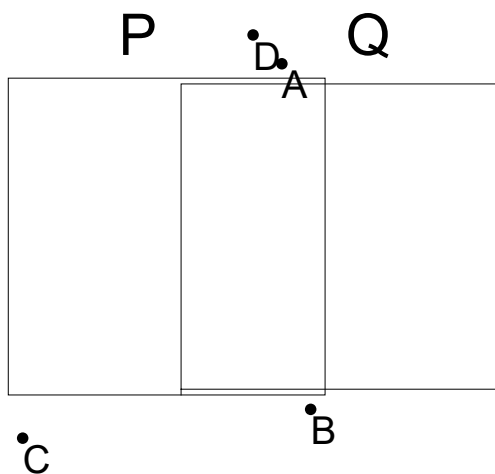
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x \neg Q(x)$	0
$\exists x \neg Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

11.



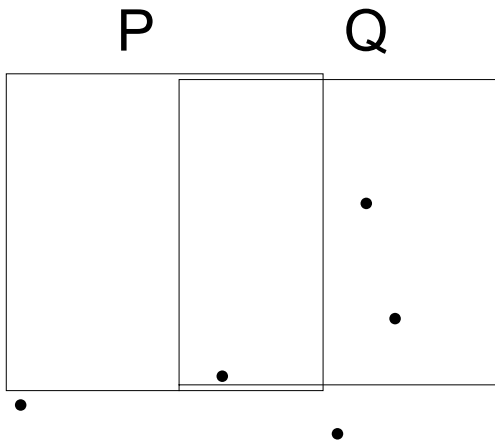
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	1
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

12.



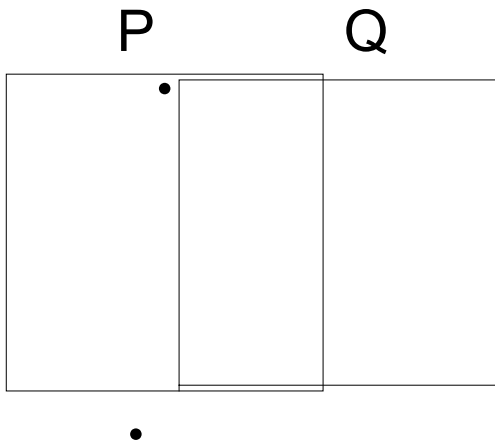
$\forall x P(x)$	0
$\exists x P(x)$	0
$\forall x Q(x)$	0
$\exists x Q(x)$	0
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	0
$\exists x (P(x) \vee Q(x))$	0
$\exists x P(x) \vee \exists x Q(x)$	0
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	1
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \exists x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

13.



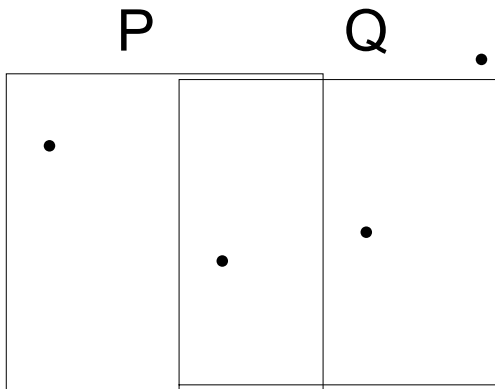
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$(\exists x Q(x) \Rightarrow P(x)) \wedge \forall x Q(x)$	1

14.



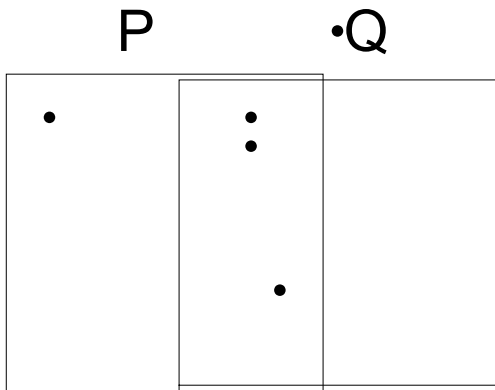
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	0
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	0
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	0
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	0
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	0

15.



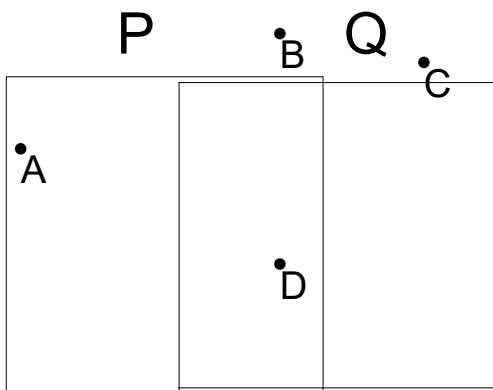
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

16.



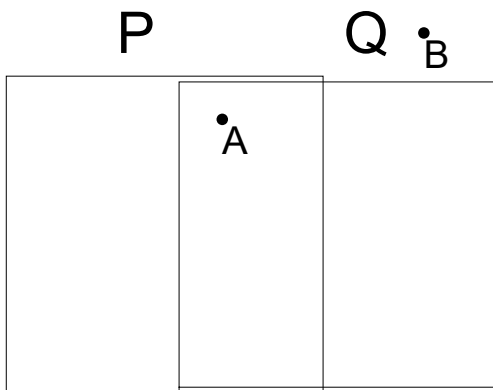
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

17.



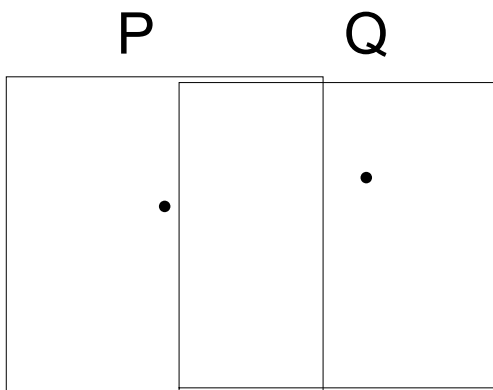
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x \neg Q(x)$	0
$\exists x \neg Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \exists x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

18.



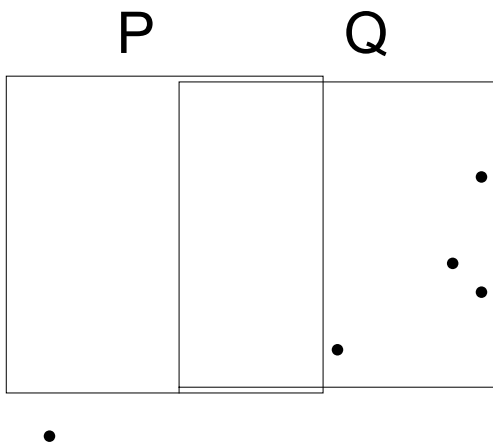
$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x \neg Q(x)$	0
$\exists x \neg Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	1
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	1
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

19.



$\forall x P(x)$	0
$\exists x P(x)$	1
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	1
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	1
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	0
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\exists x (P(x) \Rightarrow \exists x Q(x))$	1

20.



$\forall x P(x)$	0
$\exists x P(x)$	0
$\forall x Q(x)$	0
$\exists x Q(x)$	1
$\exists x (P(x) \wedge Q(x))$	0
$\exists x P(x) \wedge \exists x Q(x)$	0
$\exists x (P(x) \vee Q(x))$	1
$\exists x P(x) \vee \exists x Q(x)$	1
$\exists x (P(x) \Rightarrow Q(x))$	1
$\exists x P(x) \Rightarrow \exists x Q(x)$	1
$\exists x (P(x) \Leftrightarrow Q(x))$	1
$\exists x P(x) \Leftrightarrow \exists x Q(x)$	0
$\forall x (P(x) \wedge Q(x))$	0
$\forall x P(x) \wedge \forall x Q(x)$	0
$\forall x (P(x) \vee Q(x))$	0
$\forall x P(x) \vee \forall x Q(x)$	0
$\forall x (P(x) \Rightarrow Q(x))$	1
$\forall x P(x) \Rightarrow \forall x Q(x)$	1
$\forall x (P(x) \Leftrightarrow Q(x))$	0
$\forall x P(x) \Leftrightarrow \forall x Q(x)$	1
$\exists x (P(x) \Rightarrow \forall x Q(x))$	1
$\exists x (P(x) \Rightarrow \forall x P(x))$	1
$\forall x (P(x) \Rightarrow \exists x Q(x))$	1

Referenca : Typical Predicate Calculus Statements from the Wolfram Demonstrations Project
<http://demonstrations.wolfram.com/TypicalPredicateCalculusStatements/> Contributed
 by : Izidor Hafner
 Based on an idea by : Jon Barwise and John Etchemendy