

Ex. 1

D1-L

0		1	1						1
		1					0		0
	0			1		1		1	
	1								
1		0			1				
	0			0				1	1
			1						1
0			1		1		0		
		0							
1	1					1	1		0

Ex. 2

D1-L

	1								
1							0		0
1			1			1			0
			1		0				
		0							
					1			0	
	1			0					1
			1			0			
			1	1		0			
	1								0

Ex. 3

0		1	1			0			1
					1			0	
			1				1		
1						1			0
					0			1	
	1		1				0		
	1	0			1	0		1	
0								1	
			0			1			
0		1			0		1		1

D1-L

Ex. 4

1		1					1	1	
	0			1					0
		0			0			1	
			1						
			1		0	0			1
0									
0		0						1	1
					0		0		
0		1						1	
	1	1		0		1			

D1-L

Ex. 5

		0		1					1
	0	0							
				0		1			1
0									
	1					0	0		
		1			0	0			
1			0						1
							0		
	1	0		0				1	
	1			0		1		1	

D1-L

Ex. 6

0					1				0
	1							0	
	1			0				0	0
		0				0			
	0					0		1	1
0			1		1				
		0		1		1			
	1								
						0		1	1
1				0					

D1-L

Ex. 7

						1			
		0			0		1	1	
1	1		1		0				
			1				0	0	
0		0				0		1	1
				0					
				0			0	0	
	0				1				
0		1						1	1
			0		1				

D1-L

Ex. 8

	0				1	1		0	
									1
1	1		0			0	0		
								1	
	1		0		1		0		
	1	1		1	1			1	0
1			1	1					1
						1			
1					0	0			

D1-L

Ex. 9

					1		0	0			1
1			1					0			
1	0										0
	0								1		
			0					0		1	
				1		1	1				
	0				0						
			0			1					
	1		0		0			0			1
0					0			0		1	
											0
0	0		1					1		1	0

D1-XL

Ex. 10

1		0	0		1		0		0	0	
1			0						0		0
		1			1	1					0
0			1								
					0	0			1	1	
		1		1	0		0				
0							0			1	1
		0		0							
						0				0	
			0	0		0			1		
		1			1				1		
	0					1					0

D1-XL

Ex. 11

0		1	1				1	1		0	
		1	1				1	1			
				0	0		0	0		1	
			0								0
		0	0			0					
					1			1			
1			0		1					1	
0			0			0		1		0	
	0					0					0
1	0		1	0					1	1	
				1		1		0			

D1-XL

Ex. 12

	0	0			1				0	1		
							1					0
	1			0	0		1					
0			1					0		0	0	
				0			0		0			
1												0
				1				1	1			
0	1			1		1						1
								0				0
0	0				1		1			0		
			1		1		1			0		
		0				0		0				
			1	1			1	1				1
	1								1			0

D1-XXL

Ex. 13

	0								1	1		1
	0	0		1								
		0			0				1			1
			1			1				1		
	1		1						0	1		
						1						
				0	0		1		1			
					0					0		1
1		0	0									0
								1	1			0
		1	1									
			1								0	
		0							1		0	
	1							0				1

D1-XXL

Ex. 14

0			1			0		1	1		0	1
				0			1			1		
1	1				1			0			0	
1									1	1		
												0
			0	0					1	1		1
					0							
	0	0				1		0		1		
		0		1								0
1			0						0		1	1
	0										1	
			0		1	1			1			
0					1			0			1	
	1						1	1		0		1

D1-XXL

Ex. 15

0				0	1		0		
		1	1						1
									1
	0				1		1	1	
0	0								
					0				0
1	1						0		
				0		1			0
				0				1	
0			1			0			

D2-L

Ex. 16

		0		0	0			1	
1		0			0			0	0
			1				1		0
0				0					
0			1						
			1			1	0		0
								1	
0	0					0			
				0			1		1
0									

D2-L

Ex. 17

1		0			0				
			1			1		0	
0	1			0		1	1		1
		0							
				1		0		0	
									1
	1					1			
				0			0		0
0	0		1			1	0		0
	1								

D2-L

Ex. 18

		0					0	0	
1	1		0						
					1		0		
	0								
1	0		1		0				
		0				1			0
							0		
	1					1		1	
		1			1				1
						1	1		1

D2-L

Ex. 19

				0	0			1	
		0				1			1
		0							1
	1							0	
1					0		0		
		1							0
	0			1					
1			0		1			0	0
1		1			0				
	1			1					0

D2-L

Ex. 20

		0	0							1
0				0		0		1		
0			1						1	1
			1							
		0				1				
						1			0	0
	0							0	0	
1	0									
1										0
					0			1		
1		1	1		0				0	
								0		0

D2-XL

Ex. 21

1	1				0	0		0	0			0	1
			1	0									
	0		1			0			0	0		1	
							1		0	0		1	
0		0		0									
			0						1			0	
					0		1						
	1			1			0			1	0		1
0					0								
	0			1					0	0		1	
							0			0		0	1
			0		1			1					
	1	1		1	1					0			
	0							1	1		1		1

D2-XXL

Ex. 22

	0		0				1		
1				1					
	0		0						
		1			1			0	
			0				1		
1			0		0				
		1					0		0
		0	1					1	
1						0			
1		0							1

D3-L

Solutions

Ex. 1

0	0	1	1	0	1	0	1	0	1
0	1	1	0	0	1	1	0	1	0
1	0	0	1	1	0	1	0	1	0
0	1	1	0	1	0	0	1	0	1
1	0	0	1	0	1	1	0	1	0
1	0	1	0	0	1	0	0	1	1
0	1	0	1	1	0	0	1	0	1
0	0	1	1	0	1	1	0	1	0
1	1	0	0	1	0	0	1	0	1
1	1	0	0	1	0	1	1	0	0

Ex. 2

0	1	1	0	1	0	0	1	0	1
1	1	0	0	1	1	0	0	1	0
1	0	0	1	0	1	1	0	1	0
0	0	1	1	0	0	1	1	0	1
1	1	0	0	1	0	0	1	1	0
0	0	1	1	0	1	1	0	0	1
0	1	1	0	0	1	1	0	0	1
1	0	0	1	1	0	0	1	1	0
1	0	0	1	1	0	0	1	0	1
0	1	1	0	0	1	1	0	1	0

Ex. 3

0	0	1	1	0	1	0	0	1	1
1	1	0	0	1	1	0	1	0	0
0	1	0	1	0	0	1	1	0	1
1	0	1	0	0	1	1	0	1	0
1	0	1	0	1	0	0	1	1	0
0	1	0	1	1	0	1	0	0	1
1	1	0	1	0	1	0	0	1	0
0	0	1	0	1	1	0	1	1	0
1	1	0	0	1	0	1	0	0	1
0	0	1	1	0	0	1	1	0	1

Ex. 4

1	0	1	0	0	1	0	1	1	0
1	0	0	1	1	0	1	1	0	0
0	1	0	0	1	0	1	0	1	1
1	0	1	1	0	1	0	0	1	0
1	0	0	1	1	0	0	1	0	1
0	1	1	0	1	0	1	1	0	0
0	1	0	1	0	1	0	0	1	1
1	0	0	1	1	0	1	0	0	1
0	1	1	0	0	1	0	1	1	0
0	1	1	0	0	1	1	0	0	1

Ex. 5

1	0	0	1	1	0	0	1	0	1
1	0	0	1	1	0	0	1	1	0
0	1	1	0	0	1	1	0	0	1
0	0	1	0	1	0	1	1	0	1
1	1	0	1	0	1	0	0	1	0
0	1	1	0	1	0	0	1	1	0
1	0	1	0	0	1	1	0	0	1
1	0	0	1	1	0	1	0	0	1
0	1	0	1	0	1	0	1	1	0
0	1	1	0	0	1	1	0	1	0

Ex. 6

0	0	1	0	1	1	0	1	1	0
0	1	1	0	0	1	1	0	0	1
1	1	0	1	0	0	1	1	0	0
1	0	0	1	1	0	0	1	1	0
0	0	1	0	1	1	0	0	1	1
0	1	0	1	0	1	1	0	0	1
1	0	0	1	1	0	1	1	0	0
0	1	1	0	1	0	0	1	1	0
1	0	1	0	0	1	0	0	1	1
1	1	0	1	0	0	1	0	0	1

Ex. 7

0	0	1	0	0	1	1	0	1	1
1	1	0	0	1	0	0	1	1	0
1	1	0	1	1	0	0	1	0	0
0	0	1	1	0	1	1	0	0	1
0	1	0	0	1	1	0	0	1	1
1	0	1	1	0	0	1	1	0	0
1	1	0	1	0	0	1	0	0	1
0	0	1	0	1	1	0	1	1	0
0	0	1	1	0	0	1	0	1	1
1	1	0	0	1	1	0	1	0	0

Ex. 8

0	0	1	1	0	1	1	0	0	1
0	0	1	1	0	0	1	1	0	1
1	1	0	0	1	1	0	0	1	0
1	0	0	1	1	0	0	1	1	0
0	1	1	0	0	1	1	0	0	1
0	1	1	0	1	1	0	0	1	0
1	0	0	1	0	0	1	1	0	1
1	0	0	1	1	0	0	1	0	1
0	1	1	0	0	1	1	0	1	0
1	1	0	0	1	0	0	1	1	0

Ex. 9

0	1	1	0	0	1	1	0	0	1
1	1	0	1	0	0	1	0	0	1
1	0	0	1	1	0	0	1	1	0
0	0	1	0	1	1	0	0	1	1
0	1	1	0	0	1	1	0	0	1
1	0	0	1	1	0	1	1	0	0
1	0	0	1	1	0	0	1	1	0
0	1	1	0	0	1	1	0	1	0
1	1	0	0	1	0	0	1	0	0
1	1	0	0	1	0	1	0	0	1
0	0	1	1	0	0	1	1	0	0
1	1	0	0	1	1	0	0	1	0
0	0	1	1	0	1	0	1	1	0
0	0	1	1	0	1	0	1	1	0

Ex. 10

1	1	0	0	1	1	0	0	1	0	0	1
1	1	0	0	1	0	1	1	0	0	1	0
0	0	1	1	0	1	1	0	1	1	0	0
0	0	1	1	0	1	0	1	1	0	0	1
1	1	0	0	1	0	0	1	0	1	1	0
0	1	1	0	1	0	1	0	0	1	0	1
0	0	1	1	0	1	0	0	1	0	1	1
1	0	0	1	0	0	1	1	0	1	1	0
1	1	0	0	1	0	0	1	1	0	0	1
0	1	1	0	0	1	0	0	1	1	0	1
0	0	1	1	0	1	1	0	0	1	1	0
1	0	0	1	1	0	1	1	0	0	1	0

Ex. 11

0	0	1	1	0	1	0	1	1	0	0	1
0	0	1	1	0	1	0	1	1	0	1	0
1	1	0	0	1	0	1	0	0	1	0	1
1	1	0	1	0	0	1	0	0	1	1	0
0	0	1	0	1	1	0	1	1	0	1	0
1	1	0	0	1	0	0	1	0	1	0	1
0	1	0	1	0	1	1	0	1	0	0	1
1	0	1	0	0	1	1	0	0	1	1	0
0	1	1	0	1	0	0	1	1	0	0	1
1	0	0	1	1	0	0	1	1	0	1	0
1	0	0	1	0	1	1	0	0	1	1	0
0	1	1	0	1	0	1	0	0	1	0	1

Ex. 12

1	0	0	1	0	1	0	1	0	1	0	1		
1	0	1	0	1	1	0	0	1	0	1	0	0	1
0	1	0	1	0	0	1	0	1	1	0	1	1	0
0	1	0	1	1	0	1	1	0	0	1	0	0	1
1	0	1	0	0	1	0	0	1	0	1	0	1	1
1	1	0	1	0	0	1	1	0	1	0	1	0	0
0	0	1	0	1	1	0	1	0	1	1	0	0	1
0	1	1	0	1	0	1	0	1	0	0	1	1	0
1	1	0	1	0	0	1	1	0	0	1	1	0	0
0	0	1	0	1	1	0	0	1	1	0	0	1	1
0	0	1	1	0	1	1	0	1	1	0	0	1	0
1	1	0	0	1	0	0	1	0	0	1	1	0	1
1	0	0	1	1	0	0	1	1	0	0	1	1	0
0	1	1	0	0	1	1	0	0	1	1	0	1	0

Ex. 13

1	0	1	0	0	1	0	1	0	0	1	1	0	1
1	0	0	1	1	0	0	1	1	0	0	1	1	0
0	1	0	0	1	0	1	0	1	1	0	0	1	1
0	0	1	1	0	1	1	0	0	1	1	0	0	1
1	1	0	1	1	0	0	1	0	0	1	1	0	0
0	1	1	0	0	1	1	0	1	0	0	1	1	0
0	0	1	1	0	0	1	1	0	1	1	0	0	1
1	0	0	1	1	0	0	1	0	1	0	0	1	1
1	1	0	0	1	1	0	0	1	0	1	1	0	0
0	1	1	0	0	1	1	0	1	1	0	0	1	0
0	0	1	1	0	0	1	1	0	0	1	1	0	1
1	0	0	1	1	0	0	1	1	0	1	0	0	1
1	1	0	0	1	1	0	0	1	1	0	1	0	0
0	1	1	0	0	1	1	0	0	1	1	0	0	1
1	1	0	0	1	1	0	0	1	1	0	0	1	0
0	1	1	0	0	1	1	0	0	1	0	1	1	0

Ex. 14

0	1	0	1	1	0	0	1	1	0	1	0	0	1
0	0	1	0	0	1	0	1	1	0	1	1	0	1
1	1	0	1	0	1	1	0	0	1	0	0	1	0
1	0	1	0	1	0	1	0	0	1	1	0	0	1
0	1	0	1	1	0	0	1	1	0	1	1	0	0
0	1	1	0	0	1	0	0	1	1	0	1	1	0
1	0	1	1	0	0	1	0	0	1	0	0	1	1
1	0	0	1	1	0	1	1	0	0	1	0	0	1
0	1	0	0	1	1	0	1	1	0	1	1	0	0
1	0	1	0	0	1	1	0	0	1	0	0	1	1
1	0	0	1	1	0	0	1	1	0	0	1	1	0
0	1	1	0	0	1	1	0	0	1	1	0	0	1
0	0	1	1	0	1	1	0	0	1	0	1	1	0
1	1	0	0	1	0	0	1	1	0	0	1	1	0

Ex. 15

0	1	0	1	0	1	1	0	1	0
1	0	1	1	0	0	1	0	0	1
1	1	0	0	1	0	0	1	0	1
0	0	1	0	1	1	0	1	1	0
0	0	1	1	0	1	1	0	0	1
1	1	0	0	1	0	0	1	1	0
1	1	0	0	1	0	1	0	0	1
0	0	1	1	0	1	1	0	1	0
1	0	1	0	0	1	0	1	1	0
0	1	0	1	1	0	0	1	0	1

Ex. 16

0	1	0	1	0	0	1	0	1	1
1	1	0	0	1	0	1	1	0	0
1	0	1	1	0	1	0	1	0	0
0	0	1	0	0	1	1	0	1	1
0	1	0	1	1	0	0	1	0	1
1	0	1	1	0	0	1	0	1	0
1	1	0	0	1	1	0	0	1	0
0	0	1	0	1	1	0	1	0	1
1	0	0	1	0	0	1	1	0	1
0	1	1	0	1	1	0	0	1	0

Ex. 17

1	1	0	0	1	0	0	1	1	0
0	0	1	1	0	1	1	0	0	1
0	1	0	1	0	0	1	1	0	1
1	1	0	0	1	1	0	0	1	0
1	0	1	0	1	1	0	1	0	0
0	0	1	1	0	0	1	0	1	1
0	1	0	0	1	0	1	1	0	1
1	0	1	1	0	1	0	0	1	0
0	0	1	1	0	1	1	0	1	0
1	1	0	0	1	0	0	1	0	1

Ex. 18

1	0	0	1	0	1	1	0	0	1
1	1	0	0	1	0	0	1	1	0
0	1	1	0	1	1	0	0	1	0
0	0	1	1	0	1	1	0	0	1
1	0	0	1	1	0	0	1	1	0
1	1	0	0	1	0	1	1	0	0
0	0	1	1	0	1	0	0	1	1
1	1	0	0	1	0	1	0	1	0
0	1	1	0	0	1	0	1	0	1
0	0	1	1	0	0	1	1	0	1

Ex. 19

1	0	1	1	0	0	1	0	1	0
0	1	0	0	1	0	1	1	0	1
1	0	0	1	0	1	0	0	1	1
0	1	1	0	1	1	0	1	0	0
1	1	0	1	0	0	1	0	0	1
0	0	1	1	0	1	0	1	1	0
0	0	1	0	1	0	1	0	1	1
1	1	0	0	1	1	0	1	0	0
1	0	1	1	0	0	1	0	0	1
0	1	0	0	1	1	0	1	1	0

Ex. 20

1	1	0	0	1	0	0	1	0	1	0	1
0	1	1	0	0	1	0	1	1	0	1	0
0	0	1	1	0	1	1	0	0	1	1	0
1	0	0	1	1	0	0	1	1	0	0	1
1	1	0	0	1	0	1	0	0	1	1	0
0	1	1	0	0	1	1	0	1	0	0	1
0	0	1	1	0	1	0	1	0	0	1	1
1	0	0	1	1	0	1	0	1	1	0	0
1	1	0	0	1	1	0	0	1	0	0	1
0	0	1	1	0	0	1	1	0	1	1	0
1	0	1	1	0	0	1	0	1	0	0	1
0	1	0	0	1	1	0	1	0	1	1	0

Ex. 21

1	1	0	0	1	0	0	1	0	0	1	1	0	1
0	0	1	1	0	1	1	0	0	1	1	0	0	1
1	0	0	1	1	0	0	1	1	0	0	1	1	0
0	1	1	0	1	0	0	1	1	0	0	1	1	0
0	1	0	1	0	1	1	0	0	1	1	0	0	1
1	0	1	0	0	1	1	0	0	1	1	0	0	1
0	1	0	1	1	0	0	1	1	0	0	1	1	0
1	1	0	0	1	1	0	0	1	0	1	0	0	1
0	0	1	1	0	0	1	1	0	1	1	0	1	0
0	0	1	0	1	1	0	1	1	0	0	1	1	0
1	1	0	1	0	0	1	0	0	1	0	1	0	1
1	0	1	0	0	1	1	0	1	0	1	0	1	0
0	1	1	0	1	1	0	1	0	1	0	0	1	0
1	0	0	1	0	0	1	0	1	1	0	1	0	1

Ex. 22

0	0	1	0	1	1	0	1	1	0
1	1	0	1	1	0	0	1	0	0
0	0	1	0	0	1	1	0	1	1
0	0	1	1	0	1	1	0	0	1
1	1	0	0	1	0	0	1	1	0
1	1	0	0	1	0	1	0	0	1
0	0	1	1	0	1	1	0	1	0
0	1	0	1	0	1	0	1	1	0
1	0	1	0	1	0	0	1	0	1
1	1	0	1	0	0	1	0	0	1