Here are (diagrammatic representations of) the finite projective planes of orders 2 and 3.

	l_0	l_{01}	l_{02}	l_{11}	l_{12}	l_{21}	l_{22}
1 (p_0)	x	x	x	.	.	.	.
2 (p_{01})	x	.	.	x	x	.	.
3 (p_{02})	x	.	.	.	.	x	x
4 (p_{11})	.	x	.	x	.	x	.
5 (p_{12})	.	x	.	.	x	.	x
6 (p_{21})	.	.	x	x	.	.	x
7 (p_{22})	.	.	x	.	x	x	.

	l_0	l_{01}	l_{02}	l_{03}	l_{11}	l_{12}	l_{13}	l_{21}	l_{22}	l_{23}	l_{31}	l_{32}	l_{33}
p_0	x	x	x	x	.	.	.	.	.	.	.	.	.
p_{01}	x	.	.	.	x	x	x	.	.	.	.	.	.
p_{02}	x	.	.	.	.	.	.	x	x	x	.	.	.
p_{03}	x	.	.	.	.	.	.	.	.	.	x	x	x
p_{11}	.	x	.	.	x	.	.	x	.	.	x	.	.
p_{12}	.	x	.	.	.	x	.	.	x	.	.	x	.
p_{13}	.	x	.	.	.	.	x	.	.	x	.	.	x
p_{21}	.	.	x	.	x	.	.	.	x	.	.	.	x
p_{22}	.	.	x	.	.	x	.	.	.	x	x	.	.
p_{23}	.	.	x	.	.	.	x	x	.	.	.	x	.
p_{31}	.	.	.	x	x	.	.	.	.	x	.	x	.
p_{32}	.	.	.	x	.	x	.	x	.	.	.	.	x
p_{33}	.	.	.	x	.	.	x	.	x	.	x	.	.

The 2-design below, with parameters $(14, 8, 7, 4, 3)$, is also a 3-design with $\lambda_3 = 1$: that is, every set of three points is contained in exactly one block.

	B_1	B_2	B_3	B_4	B_5	B_6	B_7	B_8	B_9	B_{10}	B_{11}	B_{12}	B_{13}	B_{14}
p_1	x	.	x	.	x	.	x	.	x	.	x	.	x	.
p_2	x	.	x	.	x	.	.	x	.	x	.	x	.	x
p_3	x	.	.	x	.	x	x	.	x	.	.	x	.	x
p_4	x	.	.	x	.	x	.	x	.	x	x	.	x	.
p_5	.	x	x	.	.	x	x	.	.	x	x	.	.	x
p_6	.	x	x	.	.	x	.	x	x	.	.	x	x	.
p_7	.	x	.	x	x	.	x	.	.	x	.	x	x	.
p_8	.	x	.	x	x	.	.	x	x	.	x	.	.	x

A 2-design (BIBD) is *resolvable* if its blocks can be partitioned into r sets such that each point is present in exactly one block of each set. A 2-$(v, 3, 1)$ design is called a *Steiner triple system* or, if it is resolvable, a *Kirkman triple system*. The Kirkman triple system below is a resolvable 2-$(15, 3, 1)$ design with parameters $(35, 15, 7, 3, 1)$, and it solves Kirkman's 15-schoolgirls problem.

x	x	x	x	x	x	x . . . .
x	. . x . .	. . . x .	. . . x .	. x . . .	. . x . .	. x . . .
. x . . .	x	. . x . .	. . . x .	. . . x .	. x . . .	. . x . .
. . x . .	. x . . .	x	. . x . .	. . . x .	. . . x .	. x . . .
. x . . .	. . x . .	. x . . .	x	. . x . .	. . . x .	. . . x .
. . . x .	. x . . .	. . x . .	. x . . .	x	. . x . .	. . . x .
. . . x .	. . . x .	. x . . .	. . x . .	. x . . .	x	. . x . .
. . x . .	. . . x .	. . . x .	. x . . .	. . x . .	. x . . .	x . . . .
x	 x	 x	. . x . .	 x	. x . . .	. . . x .
. . . x .	x	 x	 x	. . x . .	 x	. x . . .
. x . . .	. . . x .	x	 x	 x	. . x . .	 x
. . . . x	. x . . .	. . . x .	x	 x	 x	. . x . .
. . x . .	 x	. x . . .	. . . x .	x	 x	 x
. . . . x	. . x . .	 x	. x . . .	. . . x .	x	 x
. . . . x	 x	. . x . .	 x	. x . . .	. . . x .	x . . . .