(k, λ)	$v(k, \lambda)$	Graph meeting bound	Unique?	Ref.
$(2, 2\cos(2\pi/n))$	n	n-cycle C_n	yes	
$(k, -1)$	$k + 1$	Complete graph K_{k+1}	yes	
$(k, 0)$	$2k$	Complete bipartite graph $K_{k,k}$	yes	
$(q + 1, \sqrt{q})$	$2(q^2 + q + 1)$	incidence graph of $PG(2, q)$	?	
$(q + 1, \sqrt{2q})$	$2(q + 1)(q^2 + 1)$	incidence graph of $GQ(q, q)$	?	
$(q + 1, \sqrt{3q})$	$2(q + 1)(q^4 + q^2 + 1)$	incidence graph of $GH(q, q)$	?	
$(3, 1)$	10	Petersen graph	yes	
$(4, 2)$	35	Odd graph O_4	yes	
$(7, 2)$	50	Hoffman–Singleton graph	yes	
$(5, 1)$	16	Clebsch graph	yes	
$(10, 2)$	56	Gewirtz graph	yes	
$(16, 2)$	77	M_{22} graph	yes	
$(22, 2)$	100	Higman–Sims graph	yes	

$PG(2, q)$: projective plane, $GQ(q, q)$: generalized quadrangle,
$GH(q, q)$: generalized hexagon, q: prime power