

	<i>P</i> Petersen	<i>T</i> Tetra.	<i>C</i> Cube	<i>O</i> Octoh.	<i>I</i> Icosah.	<i>D</i> Dodecah.	<i>Gr</i> Grötzsch
$ V(G) $ Number of vertices	10		8				11
$ E(G) $ Number of edges	15		12				20
$\delta(G)$ min vtx degree	3		3				3
$\Delta(G)$ max vtx degree	3		3				5
$\kappa(G)$ connectivity	3		3				3
$\lambda(G)$ edge connectivity	3		3				3
$\omega(G)$ clique number	2		4				2
$g(G)$ min cycle length	5		4				4
$\text{diam}(G)$ max vtx distance	2		3				3
$\alpha(G)$ max indep set	4		4				5
$\beta(G)$ min vtx cover	6		4				6

http://qcpages.qc.edu/~chanusa/courses/634/09_Fall/files/GraphStats.pdf

1 / 2 66.7% Find

	P_n	C_n	K_n	$K_{m,n}$	W_n	St_n	Trees
$ V(G) $ Number of vertices	$n+1$			$m+n$			n
$ E(G) $ Number of edges	n			mn			$n-1$
$\delta(G)$ min vtx degree	$\begin{cases} 0 & n=0 \\ 1 & n \geq 1 \end{cases}$			$\min(m,n)$			
$\Delta(G)$ max vtx degree	$\begin{cases} 0 & n=0 \\ 2 & n \geq 2 \end{cases}$			$\max(m,n)$			
$\kappa(G)$ connectivity	$\begin{cases} 0 \\ 1 \end{cases}$			$\min(m,n)$			
$\lambda(G)$ edge connectivity	1			$\min(m,n)$			
$\omega(G)$ clique number	2			2			
$g(G)$ min cycle length	∞			∞ otherwise 4 if $m, n \geq 2$			
$\text{diam}(G)$ max vtx distance	n			2			
$\alpha(G)$ max indep set	$\lceil \frac{n+1}{2} \rceil$			$\max(m,n)$			
$\beta(G)$ min vtx cover	$\lfloor \frac{n+1}{2} \rfloor$			$\min(m,n)$			
Is G regular?	no $\rightarrow n \neq 0, 1$			no			

	P_n	C_n	K_n	$K_{m,n}$	W_n	St_n	Trees
$ V(G) $ Number of vertices							n
$ E(G) $ Number of edges							$n - 1$
$\delta(G)$ min vtx degree							
$\Delta(G)$ max vtx degree							
$\kappa(G)$ connectivity							
$\lambda(G)$ edge connectivity							
$\omega(G)$ clique number							
$g(G)$ min cycle length							
$\text{diam}(G)$ max vtx distance							
$\alpha(G)$ max indep set							
$\beta(G)$ min vtx cover							
Is G regular?							