

test data set

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
				SQRT method						Radius index				Natural Breaks				
orig data	sorted data			radius ratios	(formula in column E)	Circle radius (in.)	(formula in column G)	Circle Diameter (in.)	(formula in column I)	radius index value	unit radius	circle diameter (in.)	(formula in column M)	breaks	(formual in column O)	3 largest diffences		class breaks
a	59,146	h	990,345	18.84	(SQRT(D4))/(SQRT(2789))	4.71	.	9.42	.	51.63		8.66		111,333	D3-D4			990,345
b	18,496	p	879,012	17.75	(SQRT(D5))/(SQRT(2789))	4.44	.	8.88	.	48.24		8.09		377,745	D4-D5	1st	879,012	690139.5
c	98,451	s	501,267	13.41	(SQRT(D6))/(SQRT(2789))	3.35	.	6.70	.	34.98		5.87		233,910	D5-D6	2nd	501,267	384312
d	46,926	x	267,357	9.79	(SQRT(D7))/(SQRT(2789))	2.45	.	4.90	.	24.41		4.10		168,906	D6-D7	3rd	267,357	182904
e	74,098	c	98,451	5.94	(SQRT(D8))/(SQRT(2789))	1.49	.	2.97	.	13.76		2.31		6,472	etc.		98,451	4,259
f	7,048	m	91,979	5.74	etc.	1.44	.	2.87	.	13.19		2.21		3,720	.			
g	50,034	q	88,259	5.63	.	1.41	.	2.81	.	12.94		2.17		277	.			
h	990,345	i	87,982	5.62	.	1.40	.	2.81	.	12.85		2.16		6,499	.			
i	87,982	k	81,483	5.41	.	1.35	.	2.70	.	12.34		2.07		5,087	.			
j	35,098	v	76,396	5.23	.	1.31	.	2.62	.	11.99		2.01		2,298	.			
k	81,483	e	74,098	5.15	.	1.29	.	2.58	.	11.72		1.97		8,562	.			
l	2,789	r	65,536	4.85	.	1.21	.	2.42	.	10.88		1.83		4,136	.			
m	91,979	z	61,400	4.69	.	1.17	.	2.35	.	10.49		1.76		2,254	.			
n	28,495	a	59,146	4.61	.	1.15	.	2.30	.	10.29		1.73		3,253	.			
o	13,986	w	55,893	4.48	.	1.12	.	2.24	.	9.89		1.66		5,859	.			
p	879,012	g	50,034	4.24	.	1.06	.	2.12	.	9.36		1.57		3,108	.			
q	88,259	d	46,926	4.10	.	1.03	.	2.05	.	8.93		1.50		2,006	.			
r	65,536	u	44,920	4.01	.	1.00	.	2.01	.	8.7		1.46		9,822	.			
s	501,267	j	35,098	3.55	.	0.89	.	1.77	.	7.64		1.28		6,603	.			
t	9,045	n	28,495	3.20	.	0.80	.	1.60	.	6.72		1.13		7,141	.			
u	44,920	y	21,354	2.77	.	0.69	etc.	1.38	etc.	5.7		0.96		2,858	.			
v	76,396	b	18,496	2.58	.	0.64	E24*\$G\$28	1.29	G24*2	5.22		0.88	K24*\$L\$28	4,510	.			
w	55,893	o	13,986	2.24	.	0.56	E25*\$G\$28	1.12	G25*2	4.33		0.73	K25*\$L\$28	4,941	.			
x	267,357	t	9,045	1.80	.	0.45	E26*\$G\$28	0.90	G26*2	3.51		0.59	K26*\$L\$28	1,997	.			
y	21,354	f	7,048	1.59	.	0.40	E27*\$G\$28	0.79	G27*2	3.04		0.51	K27*\$L\$28	4,259	.			
z	61,400	l	2,789	1.00	.	0.25	.	0.50	G28*2	1.49	0.17	0.25						
											0.25/1.49 (formula in L 28)							