

3/27/2013 3:23 PM

371	G	L	d(d,d)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
372	K	G	e(e,e)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
373	L	f(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
374	Y	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
375	V	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
376	I	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
377	S	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
378	D	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
379	N	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
380	I	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
381	I	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
382	Q	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
383	Q	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
384	V	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
385	N	e(g,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
386	F	c(a,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
387	M	d(b,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
388	S	c(c,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
389	W	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
390	A	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
391	S	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
392	T	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
393	L	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
394	S	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
395	K	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
396	C	d(d,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
397	I	e(e,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
398	E	f(f,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
399	E	g(g,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
400	S	a(a,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
401	D	b(b,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
402	L	c(a,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
403	N	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
404	P	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
405	L	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
406	A	d(e,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
407	G	a(f,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
408	L	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
409	K	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
410	F	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
411	E	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
412	S	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
413	K	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
414	A	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
415	E	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
416	D	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
417	I	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
418	A	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
419	T	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
420	I	d(g,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
421	E	e(a,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
422	R	f(b,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
423	I	c(c,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
424	P	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
425	N	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
426	L	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
427	A	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
428	I	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
429	Y	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
430	N	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
431	W	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
432	N	c(e,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
433	D	d(f,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
434	Q	e(g,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
435	S	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
436	N	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
437	L	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
438	A	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
439	L	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
440	M	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
441	S	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
442	N	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
443	K	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
444	T	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
445	L	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
446	T	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
447	F	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
448	Q	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
449	N	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
450	I	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
451	S	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
452	S	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
453	D	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
454	M	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
455	K	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
456	P	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
457	Q	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
458	S	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
459	T	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
460	A	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
461	A	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
462	E	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
463	T	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
464	S	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
465	I	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
466	S	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
467	T	c(c,c)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
468	E	d(d,d)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
469	K	e(e,e)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
470	S	f(f,f)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
471	D	g(g,g)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
472	T	a(a,a)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
473	V	b(b,b)	0.0	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
474</													

494	N	c(c,c)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
495	F	d(d,d)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
496	Q	e(e,e)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
497	K	f(f,f)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
498	A	g(g,g)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
499	C	a(a,a)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
500	I	b(b,b)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
501	S	c(c,c)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
502	P	d(d,c)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
503	C	d(c,d)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
504	E	e(f,e)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
505	R	f(g,f)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
506	I	g(a,g)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
507	I	a(b,a)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
508	P	c(a,b)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
509	S	b(b,f)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
510	A	c(c,g)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
511	D	d(d,a)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
512	R	b(e,b)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
513	Q	c(f,c)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
514	I	d(g,d)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
515	P	e(a,e)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
516	L	b(b,f)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
517	K	c(c,g)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
518	N	d(d,a)	0.0	0.0	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
519	E	e(e,b)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
520	A	f(f,c)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.001	g:0.0
521	S	g(g,d)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.001
522	E	a(a,e)	0.001	0.001	0.0	a:0.001	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
523	N	b(b,f)	0.001	0.001	0.0	a:0.0	b:0.001	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
524	Q	c(c,g)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.001	d:0.0	e:0.0	f:0.0	g:0.0
525	L	d(d,a)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.0	d:0.001	e:0.0	f:0.0	g:0.0
526	E	e(e,b)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.001	f:0.0	g:0.0
527	I	f(f,c)	0.001	0.001	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.001	g:0.0
528	F	g(g,d)	0.001	0.001	0.0	a:0.001	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.001
529	T	a(a,e)	0.001	0.001	0.0	a:0.001	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
530	D	b(b,f)	0.002	0.002	0.0	a:0.0	b:0.001	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
531	I	c(c,g)	0.002	0.002	0.0	a:0.0	b:0.0	c:0.001	d:0.0	e:0.0	f:0.0	g:0.0
532	S	d(d,a)	0.002	0.002	0.0	a:0.0	b:0.0	c:0.0	d:0.002	e:0.0	f:0.0	g:0.0
533	K	e(e,b)	0.003	0.003	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.002	f:0.0	g:0.0
534	E	f(f,c)	0.003	0.003	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.003	g:0.0
535	F	g(g,d)	0.003	0.003	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.003
536	L	a(a,e)	0.009	0.009	0.0	a:0.009	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
537	Q	b(b,f)	0.012	0.012	0.0	a:0.0	b:0.012	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
538	R	c(c,g)	0.013	0.013	0.0	a:0.0	b:0.0	c:0.013	d:0.0	e:0.0	f:0.0	g:0.0
539	I	d(d,a)	0.013	0.013	0.0	a:0.0	b:0.0	c:0.0	d:0.013	e:0.0	f:0.0	g:0.0
540	V	e(e,b)	0.014	0.014	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.014	f:0.0	g:0.0
541	K	f(f,c)	0.017	0.016	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.016	g:0.0
542	A	g(g,d)	0.017	0.017	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.017
543	Q	a(a,e)	0.018	0.018	0.0	a:0.018	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
544	T	b(b,b)	0.02	0.02	0.0	a:0.0	b:0.02	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
545	L	c(c,c)	0.022	0.022	0.0	a:0.0	b:0.0	c:0.022	d:0.0	e:0.0	f:0.0	g:0.0
546	G	d(d,d)	0.026	0.026	0.0	a:0.0	b:0.0	c:0.0	d:0.026	e:0.0	f:0.0	g:0.0
547	V	e(e,e)	0.085	0.085	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.085	f:0.0	g:0.0
548	S	f(f,f)	0.231	0.231	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.231	g:0.0
549	I	g(g,g)	0.318	0.318	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.318
550	H	a(a,a)	0.49	0.49	0.0	a:0.49	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
551	N	b(b,b)	0.645	0.645	0.0	a:0.0	b:0.645	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
552	R	c(c,c)	0.743	0.743	0.0	a:0.0	b:0.0	c:0.743	d:0.0	e:0.0	f:0.0	g:0.0
553	I	d(d,d)	0.798	0.798	0.0	a:0.0	b:0.0	c:0.0	d:0.798	e:0.0	f:0.0	g:0.0
554	H	e(e,e)	0.855	0.855	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.855	f:0.0	g:0.0
555	E	f(f,f)	0.897	0.897	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.897	g:0.0
556	Q	g(g,g)	0.915	0.914	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.914
557	A	a(a,a)	0.92	0.92	0.0	a:0.92	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
558	F	b(b,b)	0.929	0.929	0.0	a:0.0	b:0.929	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
559	E	c(c,c)	0.975	0.975	0.0	a:0.0	b:0.0	c:0.975	d:0.0	e:0.0	f:0.0	g:0.0
560	L	d(d,d)	0.992	0.991	0.0	a:0.0	b:0.0	c:0.0	d:0.992	e:0.0	f:0.0	g:0.0
561	T	e(e,e)	0.995	0.994	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.995	f:0.0	g:0.0
562	R	f(f,f)	0.997	0.996	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.997	g:0.0
563	Q	g(g,g)	0.997	0.997	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.997
564	L	a(a,a)	0.998	0.997	0.0	a:0.997	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
565	Q	b(b,b)	0.998	0.997	0.0	a:0.0	b:0.998	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
566	S	c(c,c)	0.998	0.997	0.0	a:0.0	b:0.0	c:0.998	d:0.0	e:0.0	f:0.0	g:0.0
567	T	d(d,d)	0.998	0.997	0.0	a:0.0	b:0.0	c:0.0	d:0.998	e:0.0	f:0.0	g:0.0
568	C	e(e,e)	0.998	0.997	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.998	f:0.0	g:0.0
569	K	f(f,f)	0.998	0.997	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.998	g:0.0
570	I	g(g,g)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.998
571	T	a(a,a)	0.998	0.998	0.0	a:0.998	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
572	I	b(b,b)	0.998	0.998	0.0	a:0.0	b:0.998	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
573	K	c(c,c)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.998	d:0.0	e:0.0	f:0.0	g:0.0
574	D	d(d,d)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.998	e:0.0	f:0.0	g:0.0
575	D	e(e,e)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.998	f:0.0	g:0.0
576	D	f(f,f)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.998	g:0.0
577	L	g(g,g)	0.999	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
578	R	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
579	R	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
580	K	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
581	F	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
582	E	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
583	A	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
584	Q	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
585	N	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
586	K	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
587	K	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
588	W	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
589	D	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
590	A	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
591	Q	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
592	L	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
593	S	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
594	R	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
595	Q	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
596	S	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
597	E	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
598	L	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0					

618	F	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
619	K	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
620	E	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
621	K	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
622	K	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
623	I	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
624	S	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
625	H	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
626	G	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
627	E	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
628	M	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
629	K	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
630	W	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
631	F	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
632	K	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
633	E	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
634	I	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
635	R	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
636	N	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
637	Q	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
638	I	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
639	L	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
640	Q	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
641	F	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
642	N	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
643	S	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
644	F	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
645	V	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
646	H	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
647	S	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
648	Q	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
649	K	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
650	S	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
651	L	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
652	Q	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
653	Q	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
654	D	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
655	L	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
656	S	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
657	Y	c(c,c)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
658	L	d(d,d)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.999	e:0.0	f:0.0	g:0.0
659	K	e(e,e)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.999	f:0.0	g:0.0
660	S	f(f,f)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.999	g:0.0
661	E	g(g,g)	0.999	0.999	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.999
662	L	a(a,a)	0.999	0.999	0.0	a:0.999	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
663	T	b(b,b)	0.999	0.999	0.0	a:0.0	b:0.999	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
664	R	c(c,c)	0.999	0.998	0.0	a:0.0	b:0.0	c:0.999	d:0.0	e:0.0	f:0.0	g:0.0
665	I	d(d,d)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.998	e:0.0	f:0.0	g:0.0
666	E	e(e,e)	0.998	0.998	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.998	f:0.0	g:0.0
667	A	f(f,f)	0.997	0.997	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.997	g:0.0
668	E	g(g,g)	0.995	0.995	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.995
669	T	a(a,a)	0.99	0.99	0.0	a:0.99	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
670	I	b(b,b)	0.987	0.987	0.0	a:0.0	b:0.987	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
671	K	c(c,c)	0.987	0.986	0.0	a:0.0	b:0.0	c:0.987	d:0.0	e:0.0	f:0.0	g:0.0
672	V	d(d,d)	0.986	0.985	0.0	a:0.0	b:0.0	c:0.0	d:0.986	e:0.0	f:0.0	g:0.0
673	D	e(e,e)	0.985	0.984	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.985	f:0.0	g:0.0
674	K	f(f,f)	0.984	0.984	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.984	g:0.0
675	K	g(g,g)	0.983	0.983	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.983
676	S	a(a,a)	0.981	0.98	0.0	a:0.981	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
677	Q	b(b,b)	0.979	0.979	0.0	a:0.0	b:0.979	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
678	N	c(c,c)	0.974	0.973	0.0	a:0.0	b:0.0	c:0.974	d:0.0	e:0.0	f:0.0	g:0.0
679	E	d(d,d)	0.965	0.964	0.0	a:0.0	b:0.0	c:0.0	d:0.965	e:0.0	f:0.0	g:0.0
680	W	e(e,e)	0.954	0.953	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.954	f:0.0	g:0.0
681	D	f(f,f)	0.953	0.953	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.953	g:0.0
682	E	g(g,g)	0.952	0.952	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.952
683	L	a(a,a)	0.949	0.949	0.0	a:0.949	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
684	R	b(b,b)	0.944	0.944	0.0	a:0.0	b:0.944	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
685	K	c(c,c)	0.936	0.936	0.0	a:0.0	b:0.0	c:0.936	d:0.0	e:0.0	f:0.0	g:0.0
686	M	d(d,d)	0.926	0.926	0.0	a:0.0	b:0.0	c:0.0	d:0.926	e:0.0	f:0.0	g:0.0
687	L	e(e,e)	0.895	0.895	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.895	f:0.0	g:0.0
688	E	f(f,f)	0.88	0.88	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.88	g:0.0
689	I	g(g,g)	0.853	0.853	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.853
690	D	a(a,a)	0.842	0.842	0.0	a:0.842	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
691	S	b(b,b)	0.841	0.841	0.0	a:0.0	b:0.841	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
692	K	c(c,c)	0.839	0.839	0.0	a:0.0	b:0.0	c:0.839	d:0.0	e:0.0	f:0.0	g:0.0
693	I	d(d,d)	0.837	0.837	0.0	a:0.0	b:0.0	c:0.0	d:0.837	e:0.0	f:0.0	g:0.0
694	I	e(e,e)	0.836	0.836	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.836	f:0.0	g:0.0
695	K	f(f,f)	0.835	0.835	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.835	g:0.0
696	E	g(g,g)	0.834	0.834	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.834
697	C	a(a,a)	0.831	0.831	0.0	a:0.831	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
698	N	b(b,b)	0.825	0.825	0.0	a:0.0	b:0.825	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
699	E	c(c,c)	0.815	0.815	0.0	a:0.0	b:0.0	c:0.815	d:0.0	e:0.0	f:0.0	g:0.0
700	E	d(d,d)	0.786	0.786	0.0	a:0.0	b:0.0	c:0.0	d:0.786	e:0.0	f:0.0	g:0.0
701	L	e(e,e)	0.756	0.755	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.756	f:0.0	g:0.0
702	L	f(f,f)	0.741	0.741	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.741	g:0.0
703	Q	g(g,g)	0.735	0.734	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.735
704	V	a(a,a)	0.709	0.709	0.0	a:0.709	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
705	S	b(b,b)	0.677	0.677	0.0	a:0.0	b:0.677	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
706	Q	c(c,c)	0.616	0.615	0.0	a:0.0	b:0.0	c:0.616	d:0.0	e:0.0	f:0.0	g:0.0
707	E	d(d,d)	0.485	0.485	0.0	a:0.0	b:0.0	c:0.0	d:0.485	e:0.0	f:0.0	g:0.0
708	F	e(e,e)	0.357	0.357	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.357	f:0.0	g:0.0
709	T	f(f,f)	0.338	0.338	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.338	g:0.0
710	T	g(g,g)	0.317	0.317	0.0	a:0.0	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.317
711	K	a(a,a)	0.296	0.296	0.0	a:0.296	b:0.0	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
712	T	b(b,b)	0.217	0.217	0.0	a:0.0	b:0.217	c:0.0	d:0.0	e:0.0	f:0.0	g:0.0
713	Q	c(c,c)	0.159	0.159	0.0	a:0.0	b:0.0	c:0.159	d:0.0	e:0.0	f:0.0	g:0.0