

[25]> (ep)

The world needs the DNA sequence (G A T C A G) at the location 9

Generation 0 population ...

```
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9 (A G G C C C G A A A G G C C G C A T T G A G C C G T T G A G C A A G A T G T) 0
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315 (C G C A A T G T G T T C C G T G C T G C T A T A C C A G T A) 0
316 (G A T G C C G A G G C A C T G G A T T G G T T G G T T G C A A) 0
317 (G A A T C C A T A G G C T G G A T T A T G C C A G A A C C A G) 0
318 (G G T C G A G A C A G G A T T A T G C G G A C C C T A T T C A) 0
319 (C T T C T G A G C A G G A T T A T G C G G A C C C T A T T C C) 0
320 (G A A C T A C G C T G G A T T A T G C G G A C C C T A T T G T C) 0
321 (A T A G T G T T T G G G A T T A T G C C C A G A A C C G G T A) 0
322 (T G T G C G T T T G G G A A T T G C C C A G A A C C A T T G A A) 0
323 (T A C A C C T T T G A C A G T T T C G C A T G A A G C G A T T A) 0
324 (G T A A A A G A G A A C C G C A T T T C G A T G A A A G C G A T) 0
325 (G G A A A A G A G A A C C G C A T T T C G A T G A A A C C G G) 0
326 (T T C C C T G G A C C A T G C A A T T T C A G C C G G G C A A) 0
327 (T A T G A C G C C C G C A A A G T C C T T T G C C G A A C A C) 0
328 (A T G G G A T T C C G G T G T A G T G C T A G G T T A C C G T) 0
329 (T C T C T G A G C T T G T A G T G A T G T G A T G G G T T A C) 0
330 (A A A T T A T G G A C A C C C T T G G T G A T C G G T T A C G) 0
331 (A G T A T A T G G A C A C C C T T G G T G A T C C G G T T C A) 0
332 (G C T T T G A T C G A A T G C G A A G T G T A G T G C C C G T) 0
333 (T T A T G G C G A T G A G G A C C T G G T T A C A C A C C C A) 0
334 (T T C G T A G C C T C A G A G A G C C A A T T G T A C A G A A) 0
335 (G G G T A G G T A C C A C T A G A T C G G T G A A G C T T A C) 0
336 (C A A C T A C G C T C A G T A T A C A T G A A A A T T C G C C) 0
337 (A G A C T A C G T C A G T A T A C A T G A A A A T T C C G C C) 0
338 (T G T T T A C G T A C A C A A G G C G T C G T T G A C G G A C) 0
339 (C G C T C C C T C G A G A G A T T C G G T T G C C T A C A C) 0
340 (T A A A C A C A G T T G T C A C A T A T T C G C T A T A C C) 0
341 (T G T C T T A C A G G T T C C G A C T T A G T C C T A G T C C) 0
342 (C A A G G A C A G G T T C A A T T C G A G T G C C T G G G T) 0
343 (C C A A G G T T A G G T C T A A T T C G A C C C A A C T G G) 0
344 (C A T A A C A A C G G A C C T C C T A G G A T C T C G A A T) 0
345 (T T T A G T T A C A A C A T C C G T T T C A T G G T T T C A C) 0
346 (T C G A C T C A G A T A T T G C G T G G T C C A T C C T T A) 0
347 (C A A T A G T A G A A T A A C T T T G T C C A A A A T C A C) 0
348 (C A A G T T C G G T C A A G T T C A A T T T G G C T C A G C) 0
349 (T G C G C A A C A T C A C A A A T A C T A C T G G C T A T G) 0
350 (C A G A A C A G A G T C G G G C C C T T T G A T C G C C T C) 0
351 (G G G G C G G T T C G T T A G G A C C C G A T T A C T G A C) 0
352 (C T C G T T A A A A C T C G C G C T A T A A T T T G A G C A) 0
353 (G A T T G A G A G A A T A G G C T A C T A A T T C A G G C T) 0
354 (G C T A T A T A G A G A G A C A A G A T T A T T C A G A T) 0
355 (G G A T T A T T G T C A G A G A A G A A G C G T A G T A T G) 0
356 (G C T T C G C G A C C A C A A G A T T G A T A A T C A C G A) 0
357 (A T T G C G C T C T A T C A A A T A T C G G A A G A G C T) 0
358 (T A C G C A A A C T A G A G G T G G C C C A C C C T A G T) 0
359 (C G G T A A A T A T T C G T C C C C A C C G C A A T G G T) 0
360 (C C A G A G C A T T A C A A A C T C C G A C C A A A T C C) 0
361 (T G T C C C T C T G A C A A A C G G G A C G C T T A G G C) 0
362 (G G T C T T G T T T C C C G C T A A G T T C G C T T T G T A) 0
363 (A C T A A A T T G T A A G T C A T A G C T A G T A G G T T C) 0
364 (A A G C C A G A G A A A A A T T C A A T A T G C T A G C G) 0
365 (T C C A T A C C T C C A A T A G A C T T C G C T T C G C A) 0
366 (C C A G T A A A T C A T A T A C G G A T C C G A T C C G T) 0
367 (A C C T T A A G T T C A A C A G T G G A A A C T A A A G T) 0
368 (G C T T G A G A G G G G G G T A C A A C A G A C G T T A C) 0
369 (T C C T C A A T C A G A T G G C G G A A C C C T A G G A C) 0
370 (G G G G C G A G C A A T C C C A C T T G G A T T C C G G T) 0
371 (T A C C C A A A G T G C T C A A T C A C C A A C C G T G) 0
372 (G G T C C A T A A T G T G T A C A G T A A G G T T G A G A) 0
373 (T A A C T A G A A A G T T T C T A A T A A G G G A A T T) 0
374 (T A T C G C T A G G T T T C C C A C T A A G A T A A A G G) 0
375 (G C T C C C T C G G T T T C C G G T C C A T G A A A G C) 0
376 (C A T C G G A A A G G G A C T G G C A A C G A T A C G G) 0
377 (A T T T C A G A G C A C A A T G G T T A T G A T A C G A) 0
378 (C C T G T C A A G C G C G T A T G C G A A C G C T A T G A


```

443 (T A A T C A T A G G G A A G G G A G G C A A T A A G C T G C T T A C T C) 0
444 (T G C A G T C C A C C T A C C T A A T A T T A C C T A G G C C T C G C T) 0
445 (G C A T C T T G T C C A T A A G T T A T C A T T A A G C C A G G C C C T G) 0
446 (T C A G C A T A A T C A A A C T T A C T T C C T T A A T A T T A A G T T A A) 0
447 (A T A T T C C C A C T A A A C T T C T C T T A A T T G G C A T T A A T T A A) 0
448 (T G G T C G C G C A A C G T T T T T T A T T G G C A T T A A T T A A A) 0
449 (A A C C T G T G T A A C T C G C G C C A A T G A G A G A T G A A G C A) 0
450 (A A C T C C T C A G C C C A G A A G T C A A T A C C A A A C T G T T G A) 0
451 (C G T A A A A C T A C C C T T T T C T C A A C A G C T C G A A T A C G G A) 0
452 (A T A A A T T G G C C G A T A T A T A G T A A A G G T C G G C C C G A) 0
453 (A G A G T T T C A C A G G G A A C A A T A T G G G T G C G G C A A A A) 0
454 (C T G A A G G A G T A C A A G C A G C C G T C A G C A T G C A G A A G) 0
455 (A G A T A G C T A G C T A A C G G A A C T A T A T A C T A A C T G G C) 0
456 (T T T G G A A C T G G T A G A C A C G T C T T C G C C A G A A A C C T) 0
457 (C A A A C T T A G A G G C T A C C A C T A G T T T T T C G A C C A G G) 0
458 (C A C A T T A C G T A C C T T G T C T A C T A T T C A A T A G C A C C G G) 0
459 (T T A G A T A G A A T T T T T T G C T C A C A T G G A A C G T A G T A A) 0
460 (G G A G A G A T A G T C C G A G A T T G T C T C A T T G G C T G C A T) 0
461 (G A T C A G T G C C A G T T C A G A G A G A G C T G A T G A G G G A G) 0
462 (A C T T T C T A A T G C T C G T T C A G C A A T A C A C T C G T T G A A T A) 0
463 (G A C T T G G C T T G T A A C C A G A A G T A C A C T C G T G T C C C A A T A) 0
464 (C G T A A G G G C T T G T A C C T A C A A G T T C G T G T A C T T T C C G C T A) 0
465 (C G A C G C A T A C C A T T A T G T T T C A G T T A A C C A C T C) 0
466 (C C A A G A A C A C C G T A C G A T T A A A T G T G G G C A G C C C T A) 0
467 (A A G G C T C G A C A G A A A C G G G A A A C A G G A T G G T A A T G) 0
468 (A T C G A T T T A C T T T T C A G T C A T C C T A G A T G A T A C G C T) 0
469 (A T G C A A A T C G C C A G G C T A G G G A A A G A A T A C C G T T A G) 0
470 (A T C T C C T T G A G C C C T C C C T A G G A A G T G G C A G A C C A T T G) 0
471 (C C T A T C C T A T T G G T T G C C C T A C A T T A C C A C G C C A T) 0
472 (T C A C C G A G C T A T T A G T A C G A G T T T A G A A C T C T G T G) 0
473 (A A T G C C A C A T A G C G A C T A T A C T A T T G C T G C G C T G G A) 0
474 (A C A A C C C A A A G A G A T G A C A T C A T T G A A A G G G G G C A) 0
475 (A A T C A T C T T T C T A A A G C G A C A T G C A T C C G C C G G C A G G) 0
476 (A C T G C G A T T G G T G C A A C G A C A G C T C A G T G C T C A G T G T) 0
477 (A A A C T T A A G G A T G T A A G T G C A G T T A T C A C G C C C) 0
478 (C T A A T T A G G T G C G G A C G A C A C G C G G G A T T T C C C T A G) 0
479 (A C A T T T A A T G A T A G A G A A G T C T A T T G T T T C G T T A A) 0
480 (G A A T T A A G G C A A G A A T A A T A T G G G A G A C A T G T A A C) 0
481 (G G C G C C T T C A T T G A A T G G G C T A G G G C C G G A T A C C T G A) 0
482 (C C T G G G A A T A T G A T T C T T T A A T A T C A A A G T T T A T T) 0
483 (G C C A C C G T C T A T T C G C T T T G A G A T G G C T A G A A G G A) 0
484 (G T A T T C G T G T G A G G C T A T A T C C T C C G G A C T C G G G C) 0
485 (A A T A T G G T T C G T C C T C A G A G C C G T G C A C T A C G G G G T) 0
486 (T C C A G A C T G G C G G G T C T T A C C C G C C A C A A T T T T T A) 0
487 (G A T C C T C C C T G A C G A A G G A C G C G T G G T G T T C T G G A) 0
488 (C T T G G C A T A A C G A A T A C G A C T G T A A G T A C A C T C G) 0
489 (C A G G C A T C T C C A A G C A G A T T C A T A T C A T C T A C G T T) 0
490 (A A A G G G T G A T C G T C T C T A T C G A T G A T C G T C G T C T A) 0
491 (A G A C C A A G G A C A T G A T T G A G T G G C C T C A G A T A A G G) 0
492 (G A T G A G C G A G A T A A T G T G C C C A C T T C G G C T T A G T A) 0
493 (C T C A T G A T C C C G C T C C A A G A G A C G C T G C G A T A C A C C A) 0
494 (T T G T A G T C C T A G G C C A C A C A G C A C C G T T T A C A C C A G) 0
495 (G C T A T G C A G A T T A G G T G G T G A G C C G C G A G C T A A T C) 0
496 (T C T A T G A A A G A C G G T C G T G G G G G T C G C A C T A G G A C) 0
497 (C T T A G A A G G T T C C C G C G C C G G C C C G A A T T C G A A C A G) 0
498 (G T T T G T A C A G G C G T A G A G G G C T G C G T A T A C T T G C) 0
499 (T A C C T A G C T T A C T G A C A A A G C A T C A G T G G G C G T C) 0
500 (T G C A G A C A T G T G C T G T T T T A G C A C C T T C G A C T A C) 0

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average fitness of population 0 = 0.0

average fitness of population 1 = 0.0

average fitness of population 2 = 0.0

average fitness of population 3 = 0.0

average fitness of population 68 = 0.0
 average fitness of population 69 = 0.0
 average fitness of population 70 = 0.0
 average fitness of population 71 = 0.0
 average fitness of population 72 = 0.0
 average fitness of population 73 = 0.0
 average fitness of population 74 = 0.0
 average fitness of population 75 = 0.0
 average fitness of population 76 = 0.0
 average fitness of population 77 = 0.0
 average fitness of population 78 = 0.0
 average fitness of population 79 = 0.0
 average fitness of population 80 = 0.0
 average fitness of population 81 = 0.0
 average fitness of population 82 = 0.0
 average fitness of population 83 = 0.0
 average fitness of population 84 = 0.0
 average fitness of population 85 = 0.0
 average fitness of population 86 = 0.0
 average fitness of population 87 = 0.0
 average fitness of population 88 = 0.0
 average fitness of population 89 = 0.0
 average fitness of population 90 = 0.0
 average fitness of population 91 = 0.0
 average fitness of population 92 = 0.0
 average fitness of population 93 = 0.0
 average fitness of population 94 = 0.0
 average fitness of population 95 = 0.0
 average fitness of population 96 = 0.0
 average fitness of population 97 = 0.0
 average fitness of population 98 = 0.0
 average fitness of population 99 = 0.002
 average fitness of population 100 = 0.028

Generation 100 population ...

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1  (C A G G T A T T A A T C A G T A T T C C A G T T A T T C G A A C T G T G) 0
2  (C G G G T A T T G T C A C T A T A C T C A A G T G C C C A T C C G A C) 0
3  (T A T G A C C C A T G G T C T T G G C A A A T C A C T C A C T C A A) 0
4  (A A T A A C T G T A C G A T T T C T A T G G G C A T C C A T G A T A T) 0
5  (A A T A C G T C C A A C A A A G G T A G T T A A G A C C G A T G G G T) 0
6  (A G C G T A C T T A T T A A A T T T A G G A G C C C C C A T T A C A G) 0
7  (T A G C A C T A A A T G G T G T A G G A G A T A A C C C G T A T T G) 0
8  (A A C A C T T A C T A C A T A T T C T G T T T C G C A T G A T G G C C) 0
9  (A G G A T G C C A T G T A T C T T T G G G T A C A A G A C C A C G G T) 0
10 (A A T A A C T G T A G G C T T A C A G G T A A C T G A C C A C G C T A) 0
11 (G C G A A T G A A A T T G C G A G A C A T G G A T T A A A A C A G G C) 0
12 (T A T A C T G A A A G G A A A G T T G A T T G A A C C C C C T C G C A) 0
13 (A A T A A C T G T A G G C T T C A G A C C T A G C T G A A C T C C G A) 0
14 (C T G G T A A C G A C G A A G T T T A G T T T A A C T G A A C T C C G A) 0
15 (T A A A C A T A C A C G A T T T C T A T G G G C A C T C T A T A A A T) 0
16 (A A T A A C T A C A C G G T C T T T T T C A G C T C T G C C T T C T G) 0
17 (A A C A C G G A T A G A T T A T T A T T T G T A A C C A A T G T G C T) 0
18 (A G A G T G G C A A C A G A A T C G G T G A T A A C T A T G G A T A A) 0
19 (A T T A T C C G A T C T A A C A A A G T G T T G T C T A T T C C G A C) 0
20 (A G A G T A C T T A T A T A G A T A C A A A T A A A G T A A T G G A T A A) 0
21 (A A T A A C T A C A C G G T C T T T T T C A G C T C T G C C T T C T G) 0
22 (A G A G T G C C A A A C G G A T C G A T T A T T A T C A C C T C C G A) 0
23 (A G A G A T G A C C G T G C T G A C G T G T T T T A A A G A C G G A C) 0
24 (C T G A C A C T T A A T A A C A C G G A T A A C T G A C T A T G C A C) 0
25 (A G A C G C T G A C C G T G T A A T T T A A C A T T G T G C T A T A A) 0
26 (A C A G T G G C A A C A G T A G A C T A A C A A A G T G A G A G C A G) 0
27 (T A T G T A C A T C G T C T T C T T T T C A G C T C T C C C T C T G) 0
  
```


220 (G G G T T T G T A C T A G T A G T A G G A T C C A G C C G A T A T) 0
221 (A G G A T C G C G G A C T A C A T G A T A A T A G T G A G A C C G A G) 1
222 (G C T A T G G C C A G C C A T A T A A T T T T A G T C A G A C C A A A) 0
223 (A G G A T C G C A A A A G G A T A A T T T T G A G T C C A C C A A) 0
224 (C A T T C A G C A A A C A G G A T T T T G A G T T C C A T A G C G A C) 0
225 (A T G A T G G C T A T A T G C C A G C C A T T G T T C C A G C G A T) 0
226 (A A T A C T T A T A T G C C A G C A G A G T T G C C A C C A C T T C A) 0
227 (A C G A C A G G A T A T G C C A G C A G A G T T G C C A C C A C C A C) 0
228 (C A G A T C G T A A T A T G C C A G C C A T T C A T T A T T A T T A T) 0
229 (A T G A A C G T T A C G A T T T C A T A C T G G G T C A T T T G T A T) 0
230 (A G G A A C T G T T A C G A T T T C A T A C T G G G T C A T T T G T A T) 0
231 (C G C A C G A T A T A C A T T A T A C A T T A C A C G G A T T G C T G C) 0
232 (G G A A T A T A A T C A G C A T T A A T T G T A A T T G T A A T C A G G) 0
233 (A A C A C G G A T A G G A C C A A A G T A T T T A A T T A A T C A A T C) 0
234 (A G T A C G A T T G T T G C A T T A C T A G A G T T A A T T A A G T C A) 0
235 (A T C G A C G C G A G A T C A G A G T T A G C C C T A G A A T C G G A) 0
236 (A G G A C C G C G A G A T C A G A G T T A G C C C T A G A A T C G G A) 1
237 (A G A G A C T A A A C G A A T T T A G G G A G A G A C C C T G C C G A T) 0
238 (A T A G T G G C T A C C T A C G G T A C G G T T A G T T T A A A G T C G) 0
239 (A T G G T A A C G A C G A A G G T T A G T T T A A A C T G A A C C C G A) 0
240 (T A C G T A C A C G A T T G G A T T G G C G A A A T G A C C A C A T G G) 0
241 (A G G A C G C G G T A C A A C A T C A A A G T A G T A G T A G C C A T) 1
242 (A A T A G C G C G T A C A A T A G A C A A C T C G A T A C C A C G T C A) 0
243 (A A C A C A T A C A C G A A A T A C G G A A A C A A G C A C G C G G C) 0
244 (A C G G T A T T A A T C A T T A T T C T C G T C C T A G C A C A C A A) 0
245 (A G G A T A T C A A T G T A T C A G A A C C C T T T A G T C A C A A G C) 0
246 (A G A T C A C A A A C G A A T A G A A T T G T T T A G T A T A C G G A) 0
247 (C A T A C C G T C A C T T C A G A T A G A G C C T G T T T A T A C T A T) 0
248 (G C T C C G T T C A T T C A G A T A T A G A G C C T G T T T A T A C T G) 0
249 (T C G G T A T T A A T C A A G T T G G G C T G C C A A C A G C C G A T T) 0
250 (T A C G T A C A T T A A G T C C T A G T T T T T C T A G C C G T A C A A) 0
251 (A C G A C A T T A A A A T C T A T T T A C C A G A C C A A A T C A T G) 0
252 (C A G G C G T T A C A G C T A T A T A C C A G A C C C A A A A A A G G C) 0
253 (C G G G T T T G T C A C A G T A T A G T A C G A C C A A A A A A C G A) 0
254 (A A C A C T T A C C A C G T T A G T A C G A C A A C A A A C A G C G C) 0
255 (C A A A T G T C C A A C A A A G G T A G T T A A G A C C A G A T G G G T) 0
256 (A A T A A C T G T A G G C T T C A G A C C T T A G G T T C A T T T G C G A) 0
257 (C G T C T A G C T G C G A A C C C A A T T T G T C A C C T A T T T A A G) 0
258 (A T A T T A T T A A C T C T T T A C T A G T A G A C A A A C T A C T G T) 0
259 (C C G A C A T T G T G C A G T T T T C A G A G A C C A A C C G A T G) 0
260 (C C G G A T T G T G C A T A A C T A G G G A T C C A G C C G A T A T) 0
261 (A C T C A G C T G C G G A C C C A A G T T A T G T G A T A T G T C G A) 0
262 (G C T A T G G C T A C T A T A A T T G A T T T G A A C C C C C T C G C A) 0
263 (A A C A C A T A C A C T A A C T T A T T G T A A C C A A T G T G C T) 0
264 (C A G G T G G T A C A T C G T T T C A T T A G G T T A G G T T T G T G C) 0
265 (C G C A T G A T A A C A T A A A T A T T T C C G C T G A C C G T G A) 0
266 (A G A G T G C C A A C G A A A A G T T A T C A G C A T T G C A C G C A) 0
267 (A T A G T G C C A A T G A C T T A C G G G C A C C A C T T C T A C C A) 0
268 (C G G G C T G T G T C A C G T T G T G G G A T A A G G T A G T G C G C T) 0
269 (A T G A A T G A A A C T A A C T T G G G A G A A A G T C T G C G A T G T) 0
270 (A T A G T G T G T A C G T T G T G G C A T T A A G A G T T A T A G C G) 0
271 (A A T A C G T T A A C G G C C T T C A G A G G A C T T A G G A C T A C) 0
272 (C A G A C G T T A A C C C A T A A G T G A T T T A G G T T A T A A T A C) 0
273 (G G G A T G C C A T C T A A C A C A A G T C A T T G T G C T A C T A T) 0
274 (A A T A A C T G T A G A A T C T T T T T C T A A A G C A C A C C T T T) 0
275 (C G G G C T G T G A C A C G T T G T T G G A T G A C C A C C A A G A A) 0
276 (A C G G T A T T A A T C A G A T A A T T G G A T A C C T A A A G G A A) 0
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476 (A A C G C T G A C C G T G C T G A C G T T T G A A C C C C C T C G C A) 0
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493 (A G A G A C G T T T A C A T T T T G T G G T T G T C A C C G C T G A A) 0
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495 (C A A G C G G A T A T T G C G A G A C A G G A T T A A A A C A G G C A) 0
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497 (A G A T G C C A A A C G G T A G A A T T C C G A C A C T T A C T T G) 0
498 (A T T A T C G C C T C T A A T A G A T T C G A T C A C T C G T T G T G) 0
499 (G A T G C G G A T A G A T T A T T A T T C A T G T C T A T A C C A T) 0
500 (A G G A T G T C A G C C A T A A T T T A T G T A C A T A T C C T A T C) 0

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average fitness of population 100 = 0.028

NIL

[26]> (ep)

The world needs the DNA sequence (G A T C A G) at the location 9

Generation 0 population ...

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1 (C A T A G C T C G A A C A G A T C G T G T C A A A G G G G G C C G C) 0
2 (A A G T T G T C T T T A G G A G C C G C A C C A A C C C C T G C T A C) 0
3 (C G T A C T C A A C G A G C A G T C A T A G A C C T T G C A C T C G A) 0
4 (G G G A T T T A A G G A T G T C A T A G A C C A T A G T T A T A C T C G C) 0
5 (G C T G A T T G G C A G T C A G T C C G C G A A A C C T A A T C T T G) 0
6 (C G T A A T A G A T C A A G G G G A G A T A A A A C T A A T C T T G) 0
7 (A G G G A A G G G C T G G C A G T G A A G A G G C A G G C A T G T G A) 0
8 (T C C C C C C A A T G A T C G T G C G T T T G C C C T C C A A G C C A C) 0
9 (G T C T G G C G G T G T C A A A C A T A A G T G T T G A G C T T A A A) 0
10 (T C T T G C T C A C A G T T C C T T G A A C G C A T G C T T A G G G C G) 0
11 (A G A A T T C C T C A G A T G C T T A T G A T T T T T C C G C T T C C C) 0
12 (A A A A A T G C T T C G A T C A T A G A G C C A G T A T T A T G C G C) 0
13 (G T C C A C A C A G G T G C G G T T A T A T C C C C G T A A A T A A T) 0
14 (C G A T C C A C C T A C G C G G G C C G C C T G A C G A C T T T T C C) 0
15 (A T A A C C T G A A G C C A G T G T G T A G A G A C T A T A C G T A T) 0
16 (A T A C G C G A C T C T A G G T A G G A A T A T G A T G A T A G T C T) 0
17 (G G A G G G G T C G T C A G T T T C A A T T C G A C G A T G A C G T T A) 0
18 (A G C G C C G G G C A T A T G G T A G G C A C C C T T C G C A A A G C) 0
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20 (G C A C G T G A T T C G T A T T A A G A G T G C A C T C A T A C A C C) 0
21 (C A T C A G G T T T A G C C C A T A T T G C A C C T T A A C A A C T A) 0
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28 (T C T A T C T T T T G T T T T G G A T A C A A T A T A A T A T G C) 0
29 (T C G C A T G C G G C T A C G G C G C G T T C T A C T G G G G A C) 0

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94 (G A G G T A T C C A G G C A T A A C A G G T C G G T C G A T A C C T T A C G A G T) 0
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192 (G T G C A C T G C C T T G C A T C C A C A T T C A C T A C C A C C A T G G A) 0
193 (T C T T C G A T G C G C A T C C A C A T T C A C T A C C A C C A T G G A) 0
194 (C A T T T T G C G T C C G A T A T C C T T C T G A T A G G T T G C G G) 0
195 (T T T A A A A G C A T A A G T A T G C C T G A G C C T G G T A G C G) 0
196 (T T T A A C G A T T T A C T G G T G G C C A A C T G T G G A C C A T T A) 0
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208 (G A G T A G T A A T C A A C A T T A T A C G T T C A G A G T C G G C C A G A) 0
209 (G T T A G A A T C C T T A A G A G A C C T G G C G A G G T T T C C G A A G) 0
210 (C C T C C A C T A C A A C T A A A G A C C T G G C G A G G T T T C C G A A G) 0
211 (A A T T C G C A A C A A C T G G A G A C C T C C A A C T A T T T G G G T) 0
212 (T T C A C A T C C A T G T G G A G C C G A T G G T A G G T A G T G C T A C) 0
213 (T C A C T G G T C A G C T A G T G A G A C C G A G G C G G T G A C G G A A C C) 0
214 (C A T C G C A A A A T G T A C C C A G C T A A C G G C T A T C G A C A C A) 0
215 (T A C C G T T T A G A T T C C G A T T C C G A G C T A A T C G A C A C A) 0
216 (T A G A C T T T C A C T C G T A T T C A G A T T C T A C C C G A G G A A T C A) 0
217 (T G G T A C G G G T T C G G C C C T T T T A C T G A T T A C C G A A C G A) 0
218 (C A C C A T C G G A T G G A A C G C G A G T A T C G T G A G C C T A C G G) 0
219 (C C A G T C G T T A T G G A T G C G A G G T A T C G G A A T C T G T G) 0
220 (A A T A A T A G T G T G C G C G G G C T T G G A A G G A T T C A T) 0
221 (G C A C T C G G C A G C C T G G G C A C C T G G G C A C C T G A C C G G A A G T) 0

222 (C T A A C T C C A A T T G G C A C G G G A T T A G C G T C G C) 0
223 (C G C G C T C C T C G G G T C C A C C T C A G G G A G C C G T C C G) 0
224 (G G G T T A A G G A T T C C A C C T C A G G G A T T A G C C G) 0
225 (C G A C A A A G A A T T A C C T T G G T C C A C C T C A G G G A T T A G C C G) 0
226 (C A T A A A G A A T T A C C T T G G T C C A C C T C A G G G A T T A G C C G) 0
227 (C C T T T A G C A G A T T A C C T T G G T C C A C C T C A G G G A T T A G C C G) 0
228 (C G T C A C C A A T T A C C T T G G T C C A C C T C A G G G A T T A G C C G) 0
229 (C T G A C T C C C G C T T A T T G G T C C A C C T C A G G G A T T A G C C G) 0
230 (G A T A G A G C C G T T T G G T C C A C C T C A G G G A T T A G C C G) 0
231 (C A C T A G G T T A G T T G G T C C A C C T C A G G G A T T A G C C G) 0
232 (A T C T A C G A G T T G G T C C A C C T C A G G G A T T A G C C G) 0
233 (C C C A A A T C T G A T T G C C A C C T C A G G G A T T A G C C G) 0
234 (C C T C A A A T T C G C A G C C C G A T T A G C C G) 0
235 (C G A A C A G A T T T C T G A G C C C G A T T A G C C G) 0
236 (C G A A G C G C A G A T T A G G A G C C G A T T A G C C G) 0
237 (C G A A G C C T T A G T T G G A A C C G A T T A G C C G) 0
238 (C T A T A T C G T T T G G A A C C G A T T A G C C G) 0
239 (C C T A C C A T T T C T G G C T A A T T G A A T T G A A T T G C T G C A C C G T T A) 0
240 (A T G T G A C T T T G A T A C C C A G G C G T G T T T G T A G G T C A T) 0
241 (A C T G A C A T C C A T A C C C A G A G G C G C C C C C C T T T T A A) 0
242 (T C T G A T G C A G A G T A C T G A C C C A G A G T G A C T A G G T T A G C C G) 0
243 (C G G C G G C A G A A T T G A G G T T A T A G A T T A C G A T T A C G T A A) 0
244 (A C C G A G G C A G A A T T G A G G T T A T A G A T A C G T A A) 0
245 (T C C G C T C T T T A T G A C G T C T T A C G C A G T A T C A G T G A G) 0
246 (G T G C C G G T T G G C A T A A C T T T C T T C C G C G T A G T A T T C) 0
247 (G A A T A T T C G A G T A C A T A T A C T C A A A T G T A T G C C T) 0
248 (G C A C G G T C G G C C A C A G A T A T T A A G A T T C C G C C G T A G) 0
249 (T G A T C T G A C G A T T G A A A T T G A T T C C C G C A T T C C G C T A) 0
250 (C G T G C C T A T A C G A T A C G C A T G C C C T A A G C G A A G A T A) 0
251 (A C G C A G G C C T G G C A C G A A C T T A G G C C T A A G G C T A T G C) 0
252 (T A T G C A C G C C C T T A A G T T A T T T G T C G G C G C T C A T G C) 0
253 (A A G C A A A G G G T C A A A G A A C A A A T A G G T G T T G A C T G A) 0
254 (G C C C T T A C A G A T A C C C C T T A C T A G A G G T T C C G C T A C) 0
255 (C T T C G A C A T C G A T C C C C A T T A G A T G T T A G G A T T A C) 0
256 (T C C C T G C G C T G A T G G C T T T G T G T T A C A C C A G A G C G A T C A G G) 0
257 (C G A G G G A C G G C T G G C T T T G T G T T A G A A T T C A T A A G) 0
258 (A T G G C A C G A T A C A A T A C T G T C C A C T A C T A C G G G A) 0
259 (T G T C C C G G T G T T A A C A T G C C G G A G G A G A A T G G A G) 0
260 (C C T T G G A T G A G A T C A A C A G T G C C T A A C T A T G G T T C T) 0
261 (A A A T A G A T A G A G A A C A T G T A A C G T A G G T A G A A A C) 0
262 (A T A C A C T C A C A A C T A A T A G C G G A T T G C G A G G T A G) 0
263 (A T A G A A T G A C G G C A T A T A G C G C A T A C C A C A G G A C) 0
264 (G T C A G T A C C A G C T T T C A A C C A T G G G T G G C A C C T A) 0
265 (T C C T A T C T A T G T G C A C C A A A A T A A T A C G G G A G C A G G) 0
266 (C T C A C A A T T A T C G C A T T A A G A T A C A A T C G C A T C G T) 0
267 (T A C C T G G T T A T T T G A G C C A T T A G C A A T C A C G T T T) 0
268 (T A G G G T A T T A T T T G A C G C C A T C T A C C G A C C A A C T G) 0
269 (T A G T T A G C C G A A G G G C A A G T T T C C C A G G A A A A C A) 0
270 (C C G T G T C C T A G C A A A G C A A C C T C C C A T G C C A A C A A) 0
271 (C T G C A A G T G T G G T T A A A A C A G T C C A T A G T T C C) 0
272 (A C T C A C G A T T T G A T G C A G A C A G T T C G C G C T T A C C T T) 0
273 (C T T T T G T A T T C T C G A C A C A G A T A G A T C A C T T T A) 0
274 (C G T A C C G A T C T C G A C A C A G A G C G T C C G A A T T C C G A T C) 0
275 (T T C T A G C G T C T A C G C G A C T T G A T G T C A T G T C T A G C) 0
276 (T G T C A C T A G C C C T T T G T T A G G C T A T C A T G A A T T A) 0
277 (C T A G A C T G A C C G T T T G C A A G T C G T G A C A C T C T G A T A) 0
278 (C G G C G T T G A G A C C G G T G A C A G T T A G T C T T G T G C A C) 0
279 (T C T G C G C T A A C A C A T A G T C G C A A C T T G T G T G C G A C) 0
280 (G A A T G A T A A A C T A G C G C A A C T G C T T A G C C G G C T) 0
281 (C C G A T A A T C G T C T G G T C C T T C G G A T A A C C A T T G C A) 0
282 (T C G A A C T A T T G C C T A T A C T G A C A C G A C G G T G T A A) 0
283 (G A A G G A A C G A G C C C A T C G G A T A A C A C A T A C T C A G C) 0
284 (T T G C G A T G T A A G G A A T C C G A G A T G C C G A T C C A G A) 0
285 (C A G A A T G C A A T G G C A T G G C G G C G G A A A T C G C T C C C G T A) 0

478 (T G G A C G C T C C G A G A C C A T A T C A A G C T A T T A A T G G C) 0
479 (C C G A C A C A T A A G C T C T C G G C G G A A T G C G A A A G A G G) 0
480 (T C A A C C G A C G G C G T A T A G A C A G G T G C T T G A A A C A C T) 0
481 (T A T G C A A G A A A A C G C C T G G A G G T G T T C C C C A T T T C) 0
482 (G G C G G G C A T G A T T A A T G A G A C A A C A C C G C A A T C G G) 0
483 (A A G T C T T G A T T C T G A G C A C T T A C T G T G T G C G A A T C) 0
484 (A G T C G C G G T T A G T A T C C G T C T C G T C G C T G A C C G C C) 0
485 (A A A C A T C G A C G C G C T C G A T C A T C G A C G A C G C T G T A) 0
486 (G G T T A A T G T C A T C C A T A C A A G G C G T A T C T T A A T T T) 0
487 (A T A G A T A T C T T C A C A G G G T G C C G A A G C C T A C T T A T) 0
488 (T C A T C G G A G C G G T T A T A G A G C A G A T C T G T G G T A T C) 0
489 (C T A C G G C T A A G T G T G C T G T G A C C C T G T T G G T A G C G) 0
490 (T C A G T A T C C T A A C A A C A T A G G A G A T A G C T T C G C C A) 0
491 (T C A T T T A T G A A C G A C A A A A A C G A G T G C T A A T G A G C) 0
492 (T A T T A A C C G G G A G A G G A A G G G A T T C C G A T T G T A G C G) 0
493 (C A C T A G T A A G A C T A T A A A A G G C A G A T C T G C C A G C C) 0
494 (G C T A G C C T G C A T G T T T A G T C G T A C A A A G A C G G A C C) 0
495 (T A T G T C A C A G C A C C C C C T A G T G G C C G A T G C T G C T G) 0
496 (C G G G G G A G G G G T T C G T G T C G C C A C C G T T C A G T C A G) 0
497 (T C T G T A G G G C G A T G T G A C G C G C C G G T T T C G C G C C) 0
498 (T A T C G G T T C C G C A G G T T G G T C A T A A A T C G G T C G T A) 0
499 (G A T A G A T A A G A A A T G G T C A A G A G C G C A A A T C C) 0
500 (T T T T C C A A G G C G C A T G A G A C C G A A A T T G C A T G A T T) 0

average fitness of population 0 = 0.0

average fitness of population 1 = 0.0
average fitness of population 2 = 0.0
average fitness of population 3 = 0.0
average fitness of population 4 = 0.0
average fitness of population 5 = 0.0
average fitness of population 6 = 0.0
average fitness of population 7 = 0.0
average fitness of population 8 = 0.0
average fitness of population 9 = 0.0
average fitness of population 10 = 0.0
average fitness of population 11 = 0.0
average fitness of population 12 = 0.0
average fitness of population 13 = 0.0
average fitness of population 14 = 0.0
average fitness of population 15 = 0.0
average fitness of population 16 = 0.0
average fitness of population 17 = 0.0
average fitness of population 18 = 0.0
average fitness of population 19 = 0.0
average fitness of population 20 = 0.0
average fitness of population 21 = 0.0
average fitness of population 22 = 0.0
average fitness of population 23 = 0.0
average fitness of population 24 = 0.0
average fitness of population 25 = 0.0
average fitness of population 26 = 0.0
average fitness of population 27 = 0.0
average fitness of population 28 = 0.0
average fitness of population 29 = 0.0
average fitness of population 30 = 0.0
average fitness of population 31 = 0.0
average fitness of population 32 = 0.0
average fitness of population 33 = 0.0
average fitness of population 34 = 0.0
average fitness of population 35 = 0.0
average fitness of population 36 = 0.0
average fitness of population 37 = 0.0
average fitness of population 38 = 0.0

average fitness of population 39 = 0.0
average fitness of population 40 = 0.0
average fitness of population 41 = 0.0
average fitness of population 42 = 0.0
average fitness of population 43 = 0.0
average fitness of population 44 = 0.0
average fitness of population 45 = 0.0
average fitness of population 46 = 0.0
average fitness of population 47 = 0.0
average fitness of population 48 = 0.0
average fitness of population 49 = 0.0
average fitness of population 50 = 0.0
average fitness of population 51 = 0.0
average fitness of population 52 = 0.0
average fitness of population 53 = 0.0
average fitness of population 54 = 0.0
average fitness of population 55 = 0.0
average fitness of population 56 = 0.0
average fitness of population 57 = 0.0
average fitness of population 58 = 0.0
average fitness of population 59 = 0.0
average fitness of population 60 = 0.0
average fitness of population 61 = 0.0
average fitness of population 62 = 0.0
average fitness of population 63 = 0.0
average fitness of population 64 = 0.0
average fitness of population 65 = 0.0
average fitness of population 66 = 0.0
average fitness of population 67 = 0.0
average fitness of population 68 = 0.0
average fitness of population 69 = 0.0
average fitness of population 70 = 0.0
average fitness of population 71 = 0.0
average fitness of population 72 = 0.0
average fitness of population 73 = 0.0
average fitness of population 74 = 0.002
average fitness of population 75 = 0.018
average fitness of population 76 = 0.09
average fitness of population 77 = 0.442
average fitness of population 78 = 0.812
average fitness of population 79 = 0.948
average fitness of population 80 = 0.95
average fitness of population 81 = 0.934
average fitness of population 82 = 0.948
average fitness of population 83 = 0.948
average fitness of population 84 = 0.964
average fitness of population 85 = 0.932
average fitness of population 86 = 0.948
average fitness of population 87 = 0.922
average fitness of population 88 = 0.92
average fitness of population 89 = 0.924
average fitness of population 90 = 0.94
average fitness of population 91 = 0.944
average fitness of population 92 = 0.942
average fitness of population 93 = 0.918
average fitness of population 94 = 0.956
average fitness of population 95 = 0.942
average fitness of population 96 = 0.958
average fitness of population 97 = 0.944
average fitness of population 98 = 0.946
average fitness of population 99 = 0.964
average fitness of population 100 = 0.968

Generation 100 population ...

1 (C T G T G C G A A G A T C A G C T A G C C G G A C C G C G T A T A A C) 1
2 (C T G T G T T A A G A T C A G G C T A C G C C G A C C G C G A T G A A A G G) 1
3 (G T G T A T T A C G A T C A G G C T A T G C C G A C C G C C T A G A A A C) 1
4 (C T A T G T T A A C A T C A G A C T A T G G G A T C A C G A T C A A C A G A) 0
5 (G A T C G T T A A C G A T C A G G C C C C G A C A T C A C G A T T A A A A) 1
6 (C T G T G T T A A G A T C A G G C T T G C C G C G A A C C G A T T A A A A C) 1
7 (C T G T G C G A A G A T C A G G C T T C A T G C C C G G A C C G G C A C A G A G) 1
8 (C T G T G T T A A G A T C A G G A C G A C C C G G C C A C G G T C A C A G A G) 1
9 (C T G T G T T A A G A T C A G A G C G A C C C G G C C A C G G C A C T T G C C) 1
10 (C T G T T C T A T G A T C A G G C T T T C C G G G A A C G T C T A C C T) 1
11 (C T G T G T T A A G A T C A G G C T A G T T T G A G G G G C A C C G G A G) 1
12 (T T G T T T A A G A T C A G G C T T G G C A A C C G C C A C G A G G A) 1
13 (C T G T A C G A A G A T C A G G C T G A C C G C G A C T C G C A A C G A A G) 1
14 (C T G T G T T A A G A T C A G A G C G C C G A T A A C G C G G A T G C C C) 1
15 (C A A A G T T A A G A A C A G A G C C G A T A A C G C G G A T G C C C) 1
16 (G T G T A T T A C G A T C A G G C T T G C C C T G A T A G G G G C T G C G G C) 1
17 (C T G T T C T A A G A T C A G G C T T C C C T G A T A G G G G C T G C G G C) 1
18 (C T G T G T T A A G A T C A G G C T T G C C C G G A T A A C G T A T T A A) 1
19 (C T G T A C C A A G A T C A A G C C T G T C C T G G C T G G A G T C T T G C C) 1
20 (C T G T A C G A A G A T C A G G C T A G G G C G A A C C G G T T G T T T G) 1
21 (C T G T G T T A A G A T C A G G C T A G G G C G A A C C G C T T G T T T G) 1
22 (C T G T G T T A A G A T C A G A G C C C G C G A C C G G T G A T A C C) 1
23 (C T G T G T T A A G A T C A G G C T T C G C C G A C T C G G T G A T A C C) 1
24 (C T G T G T T A A G A T C A G G C T T G C C C G G C C A A G T C T T G G A) 1
25 (C T T T G T T A A G A T C A G A G A C G A T A A C G G G G A G G G A G G) 1
26 (C T G T G T T C A G A T C A G G C T A C A G C A A A G G T C A A T T G C C) 1
27 (C T G T G T T G A G A T C A G G C T T A C G C G G A A C C G A G G A A A) 1
28 (C T G C G T T A A G A T C A G G C T G C A C C C G C G C G C A G A T T A C) 1
29 (T A G T G T T A A G A T C A G G C C T A C G C C G G A A G G T A A G A) 1
30 (C T G T G T T A A G A T C A G A G C C G C C G G A A G G T A A T G C G) 1
31 (C T T G G T T A A G A T C A A G T T T G G C C G G A A C G A T A C T T G C) 1
32 (C T G G G T T A A G A T C A G G C C G T G T G C G A A G G C C A T T G C T) 1
33 (C T G T A C T A A G A T C A G A C C G C G T C G A A C A G G A T A T T) 1
34 (C T C T G T T A A G A T C A G A T T G C T C T A A C G G T A C T T G G G) 1
35 (C T A T G T T A A G A T C A G G C G G G C C G A A C G C A G A T T A C C) 1
36 (C T G T G T T A A G A T C A G G C T T A C G G G G C A A C G C C G C T G) 1
37 (C T G T G T T A A G A T C A G G C C C G A C G A A C T C C A A C A G G G) 1
38 (C T G T G T T G A G A T C A G G A G A C C G A C G G A G G C T G G G T T A C) 1
39 (C T G A G T T A A G A T C A G A C T T G C C G C G A A C G A T C A G G A G) 1
40 (C T G T G T T A A G A T C A G A C G A C G T G A C G C C T A G A G G A) 1
41 (G T G T G T T A T G A T C A G G T T G C C T G G A C T G T G C C G A A) 1
42 (C T G T G T T A A G A T C A G G C T A G G G C G C A A C G C T T G T T T) 1
43 (C T G T G A G A A C G A T C A G G C T T G G G T C G G A A G A G G G C G G) 0
44 (C T G T G T T A A G A T C A G A G A T T G T C G G A A G A G G G C G G A) 1
45 (C T G T G T T A A G A T C A G G C T T G C C G C T G G A G T C T T G C C) 1
46 (C T G T G T T A A G A T C A G G C C C G A C A A C T C C A A C A G G G) 1
47 (C T G T G T T A A G A T C A G T C G T A T G C G C T G G A G T A A G A) 1
48 (C T G T G T T G A G A T C A G G C G T T C C A A A G G T C A C T T G C C) 1
49 (C T G T G T T G A G A T C A G G C T T G G C C T A G A G G G T A C A T C C T) 1
50 (C T G G G T G A A G A T C A G A T T G G C C G C A G G G C A C A T G C T) 1
51 (C T G T G A G A C G A T C A G A C T T G G T C G T A A G A G G G C G G C) 1
52 (C T G T A T G A A G A T C A G A C G C T C T G A C T G C G C T G T T T) 1
53 (C T G T G T T A A G A T C A G G C T A G G C C C G G A C G C A A G T G C C) 1
54 (C T G T G T T G T G A T C A G G C T A G G C C C G G C T C C G A G A G G A) 1
55 (C T G T A C C A A G A T C A G G C T T G G C C A T C C G C C A C T T G C C) 1
56 (T T G T G T T G A G A T C A G G C C C G T G C C G A A C G C T T G T C C) 1
57 (C T G T G T T A G A G A T C A G A C C G C G C T C A C G C C A G A G G A G) 1
58 (C T G T T C T A A G A T C A G G C T T C C C T G A G G G G C T G C G G C) 1
59 (C T G T G T T G A G A T C A G G C T G T A C C A A G C G G C G C T G T T) 1
60 (C T G T G T T A A G A T C A G G C G G C C G G A G G A C C G A C C G A) 1
61 (C T G T G T T C G A T C A G A G C C C T G T G A A C G C T T G A T A) 1
62 (C T G T G T T A A G A T C A G A G C C C G A T A A C G C G G A C G G A C G A A G) 1

63 (G A T A G T G A A G A T C A G C C T C G G C G C A G G G A C C A C T C G) 1
64 (C T G T G T T A A G A T C A A G C T T G G C G G A A C C G C A C C T T C G) 1
65 (C T G T G T T A A G A T C A A G C T T A G G C C G G A A C C G C A C C T T C G) 1
66 (C T G T G T T A A G A T C A A G C C A G C C G C A G A C C C G A G A G G) 1
67 (C T G T G T T A A G A T C A A G C C A C A C C G A G A G G T C C G G A G A A) 1
68 (C T G T G T T A A G A T C A A G C C A C A C C G A G A G G T C C G G G C G G) 1
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262 (A T G T G T T G T G A T C A G A C T A G G C A C G G A A A C A T G A G T C C) 1
263 (C T G A G T T A A G A T C A G A C T T A G G C C G A T A A A G G A T G C A C C) 1
264 (A T T T G T T A A G A T C A G A C T T T C C C G A T A A A C C G G A T T C C A) 1
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446 (C T A C G T T A A G A T A C A G C T T G C C C G C C G C G A C G G T G A A G A) 0

447 (C T G T G T T A A G A T C A G C T A G G C C C G A A T A G T G A A A A A) 1
 448 (C T C T G T T A A G A T C A G A T T G C C C T G G A A C G T C A C T G A) 1
 449 (C T A T G T T A A G A T C A G C G G G C C G A A C G C A G A T T T A C C) 1
 450 (C A G T G T T A A G A T C A G C T T G G C C G A A C G G T G A T C T G) 1
 451 (C T G A G T T A A G A T C A G C C T T G C C G C G A A C G G T G A T C T G) 1
 452 (C A A T G T T A T G A T C A G C C T G T C C C T A T A A G G T T C A C C A) 1
 453 (C A A T G T T A T G A T C A G A G C C C G A T A A C G C G G A C G A A G) 1
 454 (C T G T G T T A A G A T C A G A G C C C G C C G G A C A G G T A A T G A) 1
 455 (C T G T G T T G A G A T C A G C G C T G G G C T A G A G G C A G A G G A G) 1
 456 (C T G T G T T A A G A T C A G C G C C C G C C G A G A C T C C G A A T C C C) 1
 457 (C T G C G T T A A G A T C A G C C T T A T G G G A T T C C G A A T C C C) 1
 458 (C T G T G T T G A G A T C A G C C C T A C G G G A T C T C A A A C A G A) 1
 459 (T A G T G T C A A G A T C A G C G G T C C C T G G A C C G G T G A T C T) 1
 460 (C T G T G T T A A G A T C A G A G C C C C C G C C A G G G G T G C G G C) 1
 461 (C T G C G T T A A G A T C A G C T G T C C C C T A T A A G G T T A T G A) 1
 462 (A T G A A C T T A A G A T C A G A T C T T C C C T G A C C G G C A C T T G G) 1
 463 (C T G T G T T A A G A T C A G C T A A G G G G A C G G G G G C G G C) 1
 464 (C T T T G T T A A G A T C A G A G A A C G C G G A A C G T A C T T A C) 1
 465 (C T A T G T T A A G A T C A G C G G G C C C G A T G A A C A C C C) 1
 466 (T A G T G T C A A G A T C A G C G G T C C C T G A G A G G T A C T G G G) 1
 467 (C T G A G T C A A G A T C A G C T T T G G C G G A C C C G A G G G A A G) 1
 468 (C T G T G T G A A G A T C A G T C C T G A G C C C G A C C C G G A G G A G) 1
 469 (G A T C G T G A A G A T C A G C C T C G C G A T A C C G T A C T A T G A) 1
 470 (C T T T G T T A A G A T C A G C T G G A C C G T G A G G C T T A T A C) 1
 471 (C T G T G T T A A G A T C A G A C G T C C C G C T A A C A G T A A T G A) 1
 472 (C A A T G T G C A G A T C A G C T T T G G C G C A C C G G A A A C G T) 1
 473 (G T G T T C T A A G A T C A G C T G G A C C G T G A G G C T T A T A C) 1
 474 (C A T C G T T A C G A T C A G A G G A G G C C G G A C C G A C A G A G) 1
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 477 (C T G T G T T A A G A T C A G C T T C G G G G C A G G G G T A T T T T) 1
 478 (C T G T G T T A A G A T C A G A G A T G T C C G A C G G G C G T C C C) 1
 479 (T A G T G T C A A G A T C A G C T T T G C C C G G A T A A C G T A C T T A) 1
 480 (C T G T T C T A A G A T C A G C C T T G C C C T G A G G G C T G C G A C) 1
 481 (C T G T G T T A A G A T C A G A G A T C C C A T C A C G G T T A T A A C) 1
 482 (C T G T G T T A A G A T C A G C T T G A C A T C A C G G T G C A T C C) 1
 483 (C T T T A C T A A G A T C A G T C T T C C C T G A G A G C C T A G A A A) 1
 484 (C T G T T C C A A G A T C A G A A G A T G T C G G A A G A G G G C G G) 1
 485 (C T G T G T T A A G A T C A G A T T A C C A A A G G T C A C T T G C T) 1
 486 (C T G T G T T A A G A T C A G A T T A G A T A A G C G C A A C T G C G A) 1
 487 (T A G T G T C A A G A T C A G C G G T C C C T G A G A G G G A G G A T T) 1
 488 (C T G T G T G T A G A T C A G A C C T C C A A C G C G C T T C T C G T) 1
 489 (C T G T G T T A A G A T C A G C T T G G C C G A A T C C G A T G T A G C) 1
 490 (C T G T T C T A G G A T C A G C T T T C C C G G G A A C G T C A C T C A) 1
 491 (C T A C G T T G A G A T C A G C T T T G C C C T A A C G A A A C A C C C) 1
 492 (C T G T G T T A A G A T C A G C C T T A A C C G G A C A T G A T T G C G A) 1
 493 (C T G T G T G C A G A T C A G C T T G A C C G C A C G A G C A T A T T A) 1
 494 (G T G T A T T A C G A T C A G G C T T G C C A G A C A T C A C T A C C) 1
 495 (T T T T G T T A A G A T C A G C T A G G C C G A A T T A A T G T C C C) 1
 496 (C T G T A C C A A G A T C A G C T T A A C G G A C A T G A T T G C G A) 1
 497 (C T G T G T T A A G A T C A G C T A T G A T G G A G G C C G A G G A G) 1
 498 (A T G A G T G A A G A T C A G A G A T G A G A G A G G T G C C G A A) 1
 499 (G A T A G T G A A G A T C A G C G T C C T G A A C C G A G A C T T A) 1
 500 (C T G T T C T A G G A T C A G C A C A A C T G C A G G T A A A G G A) 1

average fitness of population 100 = 0.968