SUPPLEMENTARY INFORMATION

Evolutionary Strategy to Enhance an RNA Design Tool Performance

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Contents

1	Ete	erna100 Solution Sequences found	2	
	1.1	V1T99	2	
	1.2	V2T04	62	

1 Eterna100 Solution Sequences found

Lists containing the **distinct** RNA sequences found in the ten independent runs of every Eterna100 structure (consequently, there may be fewer sequences than executions that find a solution), for each Eterna100-VxTxx category. If a list is empty, that structure was not solved in that category.

1.1 V1T99

```
> 1 Simple hairpin
CCCCCAAAAAAGGGGG
CCGCGAAAAAACGCGG
CGCGGAAAAAACCGCG
CGGGCAAAAAAGCCCG
CGGGGAAAAAACCCCG
GCCCCAAAAAAGGGGC
GCCGCAAAAAAGCGGC
GCCGGAAAAAACCGGC
GCGGGAAAAAACCCGC
GGGCGAAAAAACGCCC
> 2 Arabidopsis Thaliana 6 RNA - Difficulty Level 0
{\tt CCGCCGGAAAAGGGGAAAAAAAAAACCCGCCCGCGAACCCGCGCGCGCGCCCCGCGAAAGCCC}
GAAAAAACGCCCAGGGCCCAGGGGCCCGGCGAAGCCCCGCCAAGCGCGCG
{\tt CGGCCCCAAAAGCGAAAAAAAAAAACGCCGGGGCCCAAGGGCGCGCGCCCCGAAACCGC}
{\sf GAAAAAACGCGGACGGGGCAGGGGCGCGCCCAAGGGCCCGAAGGGGCCG}
GAAAAAACGCCCAGGGCGCACCGCCCGGCGGCCAAGCGCCGGGAACGGGCCG
{\sf CAAAAAAGGCGGACGCGGCGCGCGCGAAGGCCCCCAAGCGCCCG}
{\tt CAAAAAAGGCCGAGGGCGCACGGCCCCCGCAAGGGCCGCAAGGCGGGC}
GCGCCCGAAAACCGAAAAAAAAAAACGGCGCCCCAACCCGGGCGCGCGCGCGCGCAAACCCC
GAAAAAACGGGGAGCCGGCAGCGCCCCGGGAAGGGCGCGAACGGCCC
GAAAAAACGCCCACCGCGCACCCGGGCGCCCGAAGCGGGCCCAACGCGCGC
{\tt CAAAAAAGGCCGACGCGGCAGCCGCGGGCGGAACGCCGGGCAAGGGCGCC}
> 3 Prion Pseudoknot - Difficulty Level 0
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> 4 Human Integrated Adenovirus - Difficulty Level 0
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GGCGCGGCGAAAAAAACGGCCGCCCAAAAGCGCCGCAAAACGCCGGAAAAGGCCCAAACG ${\tt CCGGCCGCGCGGGACGCGGCAAAAAAAAAAACGCGGGGGCCGGAAAAAGGCGGGCCAAAAGCC}$ CGGCGCGCGAAAAAAACGGCGCGCGAAAAGGCGGCCCAAAAGCCCCGAAAAGCCCCAAACG GCCGAAAAAACGCCCGCGCGAAAAAAAAAAAAAGCCGCGACCGCAAAAGCGCGGAAACCGGAAA GGGGAAAAAACCCCGGGGCCAAAAAAAAAAAACCGCCGAGCGCAAAAGGCCCGAAACCCGAAA GCCGCCCCCGGGACGCGGAAAAAAAAAAAGCGCCGCCGAAAAAGCCGGGGCAAAAGGC GCGCCCGGGAAAAAAACCCGGGGCGCAAAAGCCGCCCAAAAGGCCGGAAAACGGCGAAAAGC CCCGCGGGGGAAAAAAAACCCCCGCGGGAAAAGCCCCGGGCAAAAGGCCGGAAAAGGCCCAAAGCGCGCAAAAAAGCGCGCGCGAAAAAAAAAAAAACGGCCGACCCCAAAACGGGCGAAACCGCAAA GCGGGGCCCGCGAGCGCCGAAAAAAAAAAAGCGGGCCCCCGAAAAACGCGGCCGAAAAAGGG GCCGCCGCAAAAAAAACGGCGGCGGCAAAACCCCGGCCAAAAGCGCGGAAAAGGCGCAAAGC GGGGAAAAAACCCCGCCGCAAAAAAAAAAAAACGGCGCACGCGAAAACGGGCCAAACCGCAAA GGCCGGGGGGGCCACGCCGAAAAAAAAAAACGCCCCGGGGAAAAACCCGGGGGAAAAAGGG GGCGCGCCCAAAAAAAAGGCGCGCCCAAAACCCCCCCCAAAAGGGCCGAAAAGCGGGAAACC CGCCCCGGCAAAAAAAGCCGGGGGCGAAAAGCCCCGGGAAAAGCCCGGAAAACGGGGAAAAG CGGCAAAAAAGCCGCCGCGCAAAAAAAAAAAAACCCGGGACGCGAAAAGGGGGCCAAAGCCCAAA GGGGCCGCCGGGACCCCGCAAAAAAAAAAAACGCGGCCCCCAAAAAGGCCGGGGAAAACGC GGGCGCGCGAAAAAAAAACGCCGCGCCCAAAAGCGCCCCGAAAAGCCGGGAAAAGGCGCAAACC

```
> 5 The Gammaretrovirus Signal - Difficulty Level 0
AACGCGAAGGACGUAAACGUUUUAAGGGAAAAAAGCCGAAGCGACCACGGGGCGAAGGCCCCAA
GAGUGGCGCCGGCAAAUCCUUGGGUACCCAGGGGUAA
AACGCGGGUUAGCAGCAGCUAAUAAGGGAAAAAACCCCGACCCAGGGCGGCCCAAGUGGGCCAG
AAGCCCGGGGGAAAGCCCGGCAA
AACGUUAUGUGGACGCCUCCAUACGGGGAAAAAACCCGAAGGCUGCCCCGGGAAAACCCGGAA
AAGGGCGCCCGGGAAGUAUCGCUCUAAAGCGGUAUAA
AACUCGACCGCGGAAAACCGCGGAAGUGAAAAAGCCCGAACUCUACCGGGGGCUAAAGCCCCGA
AACGGUGAGCGGGAACCGCCCCAUAAGGGGGCGGAA
AAGGAGAUCGGGGCUAUUCCCGAGAUGCAAAAAAGCGAAGGCGAGGCCGACCCUAGAGGGUCA
AGAGGCCCGCUCGCAAGCGGCCUCUGGUGAGGCCGCAA
AAGGCGACCAGGCGAACGCCUGGGAGGCAAAAAAGGCAAAGCCACGCCCCCGCAGAUGCGGGAA
AAGGCGGCUGCCAAUAUAUAUAUCCCCAUAUUAUAAA
GAACCCCCUCCGGGAAGGGCGGCCAAAAGGCCGCCCAA
AAGGCGAUGGGUUUUAUAACUCAGAGGCAAAAAAAGGCCAAGGGAGGCGCCGGCAAAUGCCGGA
AAACGCCCCGGCCAACCCGGGCGAAAACGCCCGGGAA
AAGGGUGCCGGCCUGUUGGCUGUGCCAAAAAAGCCCAAGCCACCGCGGGGCAAAUGCCCCAA
GAGCGGGCGGCAAGCUGCUGAGAGAUUAGCAGCAA
AAGUCAACGGGGCAAAAGCCCCGAGGUCAAAAAAGGCCAACCGAGGCGAGCGCAAAUGCGCUUA
UACGCCCGGGGCCAAGGCCCGCGAAAACGCGGGCCAG
> 6 Saccharomyces Cerevisiae - Difficulty Level 0
{\tt CCGUCGGAAAGCCCGGCAACCCGAAUAAAAACGGGGGCCAAUAAUAAAUGAAGCCGAAAGCCGC}
GGAAAAAACCGCGGAAAAGCCGCUCAUAACGUGGCCGGGCCCAAAAGCGCGGCAAGGCGGAAA
AAGGCGCCGGACUACGCAUAAUGGUCCAAAAGGCGGAAAAUAACCGCCGCCGCGCAAAA
AUUAAAAGGGCGCCGGGCGAAAAGCCGGGUACGGCAGACUUGAAUGCCGCACGCGAAAACAGCG
UGCACCAGGGUAGAAAAAUACCCGCCCGGCAAAACCGGGCCAAGGGGGAAAUAGACCCCGGCC
GCGAAAAAGCGGCCAAAAGGGUACAGUGUUUACCUGGCCCGGAAAAACGGAGUACGGGGGGA
CGGCCCGCCGAAGAGAAGGCAGCGAAAAAAAAAAAAGCAAUUCCGAUUCUAAAUGUUGG
AAAAAAACGGGGGGGGCAAAACCCGCCCAAGCCCGAAAAGUAGGGCGCCCGCAAAAAUAGCG
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GCGAAAAAACGCCGGAAAACCGCGAAAAAACGCGGCCGCGAAAAGCGCCCGAACGCCAAA

GCAGCCCGCCCGGCAUAAAGGGCAGCGAAAAUAUAAAAAAAGCAAAAAUGCUAAUUAGAAGCGU AAAAAAGGCGCCGCGGGGCCCCGCAACCAUAGGAGAAAGUGGGCCCCGAAAAAAACGG GGCAAAAACGCCGGAAAAAGGCGUGCGGGGCCCCCCGGGCGAAGCCUGAAAUGAUGGGCGG AUAGAGCGCGGGCCAAAGAAGGCCCCAAAAGGGGCAAGAAAGCCCCGCUCCGUCCCCGCCACCCCGAGUAUAAGAUUGGAGCGUAAAAAAAAAAAGAAGCAAGAACGCCAAAUUAAGCCGU AAAAAAGCGCCUACGCAGAAAAGGGCGCGGAGCCCGAUAUUAAGGGCGCAAUGUCAACUCCGU UGCAAAAACCCCAAGAUAAGGGGUCGCGCCCAAAACGCGGCCAAGCCCAAAAAUAAGGGCCCCG ${\tt CCAAAUAAAGGCGGGAAAAUCCGACAGAGACUCGGAGGCCGCGAAAAGGAGUAUAAGCUACAUU}$ AGACUGGCGCCGAAAAAAGGCGGCAACAGGCCCGAUUAAAGGGCCAUACUUCAAAA GCGGGGCAAAAGGGCCCCAACUGAACUCUCCCUCGGGCCGUUAAGAAAAGAAGGCAAAAGGGAU AAAAAAGUCCCGGGGCCCAAAAGCCCCGGAACCUACAAAUUAAUGGGGCCGCCCAAACUAGGC GGCAAAAGGGGCGAAAGAAGCCCCCCGGGGCAAAAAUUAUUUCCGGCCGUAAAAAGAGGCCCCCC UCAGACAACGAGGGCCCCAGGGCGAAAGUAGCCCUAAAUAAUAAAAAAUAUUUCCGGUAGAAU UGAAUGCCACCGCAAGAAAAGCGGGUCCCCGAUAUCCCCCCAUAUCAAAUAUUAAAA GGCCUGUGACCGAAUGAUAGGUCCGCGAGUAAGAUGAGAAAGCAACAGGUGCAAAUUUGGUAC ${\sf CACGGGCUCCCGGCCGGCAAGCCCGUUAAUAAGGGCGCCAAAAUUAAAAAAAGGCAAAAGGCC}$ $\tt CACACAUAGGGCCGCCGGCCCCGCGCGCCCAAGAUCGAUUAGAAGAUCGGGGCCAAAAAAAGG$ CCCCAAAAGCGGGAAAAAAACCCGCGGGGGCCCCCGGGGGCCGAGGCCGUAAGAUAGGCCGCG UAAAAGCCCCGUUAGGAAGAAGUUGGCGAGAAGCCGCAAAAAAAGCGGCCGCCGGCCCC GGGCGCCCCAUAGUAUAGGGCAGGGAAAAAAAAAAAAGAACCAUAACCCCGAAAAAAACGGGG GGCGCCCCCCCCCCCACGGAAAAAAAACCCGGGCGAUAUAAAAAUAGCCAUAAAGCGC AAAAUAAGUGCUGCGGGGCCCGCGGGAAGGCCAAAAAAUAGGCCCGCGGGAAAAAAACCC GCGAAAAGCGGCGAAAAAAGCCGCCCGGCGCCCCCGUAUAAUCAGCCCAUAGUAAAGGGCGCCC GCAAAAAAGCGGGCCCCCACAGACCCCCCCUCUGUAUUAUACCCCCGCCGGCCAUGCCCAAAA GGGCGCCCCGAUAAAAAGGCAGCGAAAAAAAAAAAGCAAAAGCCACAGAGGCAGUGG CGCCGCCAAAAGGGCGACGGGCCCGAUAAAAAGGGCGGCGAAAAGAAAAAAAGCCAAAAAAUG ${\tt ACCCCCCUCAUUGUCGCCCAAAAAAAGCGAAAGACCGAGGCAUAGGUCCGGGGGAAAAAAACCC}$ GGGAAAAAACCCCGCAAAAGGCGCGCAUACAGCGCCCGGGGCCAAAACCCCCCGAAGGCGGUA CAAUACGCCGCCUACAGGUUAAGUGGGUAAAAGGCGCCAAAAUAAGCGCCCGGGGGAAAA UCCCGACGGGUGGUCAUUAACCCCGCGAAAAUAAAUAGAAAGCAACUGGCCCAAAAAAAGGGCC AAGAAAGGCCCCGGAAAACCCCCCUCAGAGCAAAAUUAAGCUCGGGCGAAAAAAACCG GCAAAAAAGCCCGCAAAAGGCGGAAAAAAACCGCCGGCCGGAAAAGCGGGCCAAGCGGAAAA

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> 8 G-C Placement
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(((((...)))).

CCCCAAAGGGGA

CGCGAAACGCGA

CGGCAAAGCCGA

CGGGAAACCCGA

GCCCAAAGGGCA

GCGGAAACCGCA

GGCCAAAGGCCA

GGCGAAACGCCA

> 9 The Sun

CCGACCGCCCAAAGGCGAACGCGGAAAGCGAGGGCGCGAAACCCCGCAAACCCAGG CCCCCAAAGGGGAAGCCGGGAAAGCGAGGCGCGAAACGCCAAGCCCGCAAACCGACCCGCA AACGCCAAGGGCGGAAACGGAGGCGCCCAAAGGGCAAGCCCCGAAAGGCAGGCCGGGAAACCCG AAGCCGCCAAAGGGAGGCGCCAAAGGCGAACCCCCCAAAGCGAGCGCGCAAAGCGCAACGCC GC

CCGAGCCGCGAAACGCCAAGGCCGGAAACCCACGGCCGGAAACCGGAACCGGGAAAGCCACC CCCGCAAAGCGGAAGGGGCAAACGCACCCCCAAAGGGGAACGCGCGCAAACGCACCGCGCA AAGCCGAACGGCGAAACGCACCCGGCCAAAGGCCAAGGGCGAAACCGACCGCCCAAAGGGC AAGCGCGGAAAGGGACGGCCGAAACGCCCCAAACCGACCCCCAAAGGGCAAGGGC GG

GCGACCCGGGAAACCCGAAGGCCCAAACCCAGGCCGCAAAGCCGAAGCCGGAAACCGACC CCCGCAAAGCGGAAGGCGGAAACCGAGGGGGGGAAACGCCAACCCCGGAAAGGCAGCGCGCA AAGCGGAACGCGCAAACCCACCGGGCGAAACGCCAACGGGGGAAACGCAGCGGAAACGCCAAACCCAAACCCGGAAACCCGGAAACGCGAAGGCG GG

GGCACGGGCGAAACCGCAACCGCCAAACGCACCCCGGCAAAGCCGAAGGGGCGAAACCGAGG CCGCCAAAGGCGAAGCCGGAAACCGACGCGCCAAAGGCGAACCGCGGAAAGGCACCGGCCGA AACGGCAACGGGCCAAACCCACGCGCGGAAACCGCAAGCGGGGAAAGGGACGGCCGAAACGGC AACCGCCCAAACCGAGCGCGCAAAGCCGAACGCCGGAAACCGACCGGGCCAAAGGCCAACGGC GG

GGGACCCGGCCAAUGGCCAAGGGCCCAAACCGACGCGGGGAAUCCCCAAGCGCGGAAAGCCAGC
GCCGGAAACCGGACGCGAAACCGAGGCGGGCAAAGCCCAAGCCCGGAAACGGACACGCGA
AACCGCAAGUGCCGAAACGGAGGCCGCAAACGCGAAACGCCAAAGAGGCG
AUGGCCUCAAACGGAGCCGCAAAGCGCAAGCCCCGAAACGGCCCGCAAAGCGC
CG

> 10 Frog Foot

.....(((((...))))((((...))))((((...))))

> 11 InfoRNA test 16

CCCGGGACGCGGGCAAAAGCCCCAGCAGACCCGGG CCGCGCACGCGCGAAAACGCGCAGCAGAGCGCG CGCCGCACGGCGCAAAAGCCGCACCAGAGCGGCG CGCGCACGCCGCCGAAAACGCGAGCAGAGGCGCG CGCGGCACCGGGCGAAAACCGCCACGAGAGCCGCG CGGGCGAGGCCCGGAAAACCGGCAGCACACGCCCG GCCGCACCGCCGCAAAACGCGGACGAGAGCGGGC GGCGGCACCCCCCAAAAGGGGGAGCAGACCGGCC GGCGGCACCCCGCGGAAAACCGCGAGGAGAGCCGCC

> 12 Mat - Martian 2

> 13 square

UAAUUUAAAAUUUUUAAAAUUUUUACCCAUAAAACCCCUUUAAAACCCCAUUUUACCCCUAAAU UA

UAUUAUAUUAAAUCCCCAUUUUACCCCAAUAAAUCCCCAUUUAACCCCUAUAA UA

> 14 Six legd Turtle 2

AGUAAGGAUAGCGGAAGUGAAGCGGAAGUAGAGCGGAAGUAAAGCGGAAGUGUAGCGGAAGUA AAGCGGAAGUAGACCAAGUAAUAAAAGAAGAAGAG

 ${\tt UGAAAGCAAAAGGAAAGGAAAGGAAAGGAAAGCAAAGGAAAGCAAAGCGAAAGCAAAGCAAAGCAAAGCAAAGCAAAGCAAAGCAAAGCAAAAGCAAAAGAAAAUGAAAU$

> 15 Small and Easy 6

(((((((....))..((.....))))))

CCCGCAAAAAGCAACCAAAAAAAAAAGGGGG

CGCCCAAAAAGGAAGCAAAAAAAAAGCGCG

CGCGCAAAAAGCAACGAAAAAAAAAACGGCG

GCCCCAAAAAGGAAGCAAAAAAAAAAGCGGC

GCCGCAAAAAGCAACGAAAAAAAAAACGGGC

 ${\tt GCCGGAAAAAACCAACCAAAAAAAAAAGGGGC}$

GCCGGAAAAACCAACGAAAAAAAAAACGGGC

GCGGCAAAAAGCAACCAAAAAAAAAAGGCGC

> 16 Fractile

> 17 Six legd Turtle

 $\dots ((\dots ((\dots ((\dots))\dots (($

AAAAACCAAAAUCGCAAGAAAAUCGCAAGAAAAUCGCAAGAAAAUCGCAAGAAAAUCGCA

 $AUAAGGCAAAAGGGAAACCAGUAGCGAGGGGUAAGCGAAGGCAAGAGCAUAAGGAU\\ AUCCAUAAGGGAGACCGAUAGCGAAUAUAGAAGAAGAAUAG\\$

> 18 snoRNA SNORD64

> 19 Chalk Outline

> 20 InfoRNA bulge test 9

CGCCGGGAGAGACCCCGCGAAAACGCGGGGCCCCCCGGCG

CGCGCGCAGAGAGACCCCGGCAAAAGCCGGGGCCCGCGCGCG

GCCCCGAGAGAGAGCCGGGGAAAACCCCGGCCCCCGGGGGC

GCGCCCGAGAGAGGCGGCCAAAAGGCCGCCCCCGGGCGC

 ${\tt GGGCGCGAGAGAGACGCCGCCAAAAGGCGGCGCCCCGCGCCCC}$

> 21 Tilted Russian Cros

AAAAAGGCCCGGCAAAAGCCGGCGGAGGGGAAAACCCCCGGGGAAAACCCCGAGCGAAAACCGAAAAAGGCGGGGCAAAAGCCCGCGGAGGCGAAAACGCCCCCAAAAGGGGCACCCGAAAACGG > 22 This is ACTUALLY Small And Easy 6 CCCC > 23 Shortie 4 ((....)).((....))CCAAAAGGACCGAAAGG CCAAAAGGACGGAAACG CCAAAAGGAGGGAAACC CCGAAAGGACCGAAAGG GCAAAAGCACCGAAAGG GCAAAAGCACCGAAGGG GCAAAAGCACGGAAACG GCAAAAGCAGCGAAAGC GCAUAAGCACCUAAUGG > 24 Shape Test AAAAACGACCCAACCGGGAAAAAAAACCCGGAAGCGAGCCAGGCCCAUUAAGGGCCAGCUAAAG AAAAACGCCCGAAGCAGCCGGUUGUAAGCGAGGCAGCGGUGUGAAGCCGCAGCCGAA AAAAAGAACCGAACCGGCAGAAAAAAGCCGGAAGGGACGGAGGCGGAAAAACCGCCAAGGAAAA AAAAAGAAGCGAACGGCGAAAAAAAAACGCCGAAGGGACGCAGCGGGAAAAACCCGCAGCGCAAA

AAAAAGGCGCCGACCCGGAAAAAAAACCGGGAAGCCAGCAAGAGGCUAUGAGCCUCAGCCCAAA

AGGGCAUGCGGCGAGGCGCAAAAAUAAAAAAGAGAAAAA

UAAAAGAAGCCAAGGCGAAAUAAAACGCCCAAGGAACCAAGCAGCAAAAAAGCUGCACGGGGAA ACCCGGUGGUCCAAGGCUACAAAAGAAAAAUAGAAAAGUU

> 25 The Ministry

> 26 stickshift

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..(((((((((((....)).))))))...
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AACCCGCGCAAAAACGACGCGGGAA

AACCGGGGCGAAAAACGACCCCGGAA

AACGGGGCCAAAAAGGACCCCCGAA

AAGCCGCGCCAAAAAGGACGCGGCAA

AAGCGCCGGGAAAAACCACGGCGCAA

AAGCGGCCGCAAAAAGCAGGCCGCAA

AAGCGGGGGAAAAACGACCCCGCAA

AAGGCGCCCAAAAAAGCAGGCGCCAA

AAGGGCCCCGAAAAACGAGGCCCAA

AAGGGGCCCCAAAAAGGAGCCCCCAA

$> 27 \; {\rm U}$

> 28 Still Life (Sunflower In A Vase)

```
AAACACCAAGGGCCAAAAAGGCCCAAGCCGGAAACCGGCAACGCGGAAAAACCGCGAACCGGGA
AACCGGAACCGCGAAAUACGCGGAAGGCGCAAAAAGCGCCAGGGGCCCCGGCCCCCGGGCC
AAAAAAAAAAAAAUAAAGGGGAAAAAAAAAAAAGGCCCGGCCAAAAGGCCCGAGGCCCGGG
GGGGCCGGGGCCCAAGCGGGAAAAACCCGCAAGCGCCAAAAAGGCGCAAGCCGCAAAAAGCGG
CAAGGGGGAAAAACCCCCAACCCCGAAAACGGGGAACCCGGAUAAACCGGGAGGUGAAA
AAAAAAAAAAAAAAAAGCGGAAAAAAAAAAAAACCGCCGGGCGAAAACGCCCACGCCCCGCG
{\tt CCCGGGGGCCCGGAACCCCGAAAAACGGGGAACGGGCAAAAAGCCCGAAGCGGCAAAAAGCCGC}
AAGGCCGAAAAACGGCCAACGGCGAAAACGCCGAACGCGCAAAAAGCGCGAGCGGAAA
AAACGCGAACCCCCAAAAAGGGGGAACCGCGAAACGCGGAACGGGGAAAAACCCCGAAGCGCCA
{\tt CGGGCGGGGGCGAAGGCGCAAAAAGCGCCGAAAAACGGCGAAGGGCCAAAAAGGCCC}
AAGGGGGAAAAACCCCCAAGCCGCAAAAGCGGCAAGGGCGAAAAACGCCCACGCGAAA
AAACGCGAAGGGCCAAAAAGGCCCAACCGGCAAAGCCGGGAACCCGCAAAAAGCGGGAAGCGCCA
AAGCCCGAAAAACGGGCAACCGCCAAAAGGCGGAAGGGGGAAAAACCCCCACGCGAAA
AACGCCCAAAAAGGGCGAAGCGGGAAAACCCGCAAGGGCCCAAAAAGGCCCAGCCGAAA
{\tt CGGGCCGGGGGCGAACCGCGAAAAACGCGGGAAAAAACCCCGAAGCGGGAAAAACCCGC}
AAAGCGCAAGGCCGAAAAACGGCCAACCCCCAAAGGGGGAAGCGGCAAAAAGCCGCAAGGCGCA
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AAGGCGGAAAAACCGCCAACGCGCAAAAGCGCGAAGCCGCAAAAAGCGGCAGCGCAAA
AAAGCGGAACCGCGAAAAACGCGGGAACGCCGAAACGCCGAAAAACGGGGAAGGCGGA
GGCCCGCCGCCAACCGGCAAAAAGCCCGAACCCGCAAAAAGCGGGAACCCGCAAAAAGCGGG
AACGCCCAAAAAGGGCGAAGGCCGAAAACGGCCAAGCCCCAAAAAGGGGCACCGCAAA
AAAGGCGAACCCCGAAAAACGGGGAACCCGGAAACCGGGAACCGCCAAAAAGGCGGAAGCCGCA
AAGGGCGAAAAACGCCCAACCGGGAAAACCCGGAACCCGCAAAAAGCGGGACGCCAAA
AAAGGCGAACGCCCAAAAAGGGCGAACCGGGAACCCGGAACCGCCAAAAAGGCGGAACGCGCA
AAAAAAAAAAAAAAAAGCGCAAAAAAAAAAAAAAGGCCCCGCCAAAAGGCGGACCCGCCCG
{\tt CCGCCGCGGGGCAACCCGCAAAAAGCGGGAACGGGGAAAAACCCCGGAAGCCGGAAAAACCGGC}
> 29 Quasispecies 2-2 Loop Challenge
AAAAACGACCGCAGGCGCGAAAACGCGAAUGCGAGCCGAACAGAGGACGCCGAACAACGC
AAAAAGCCCCGCGAAGCCCAAAGGGGCAACGCGAGAGGUUCAGAGGGUCUCAGGCGAAGAACCA
AAAAAGCGCGCGGGGGGCCCAAAAGGGCAACCGCAGCCGAACAAGGGACGGCACGGCGAGAAGCC\\
{\tt CCCCCCGCGCCCGACAGCAAAAGCUGAAGGGCAGCCGAACUAGGGACGGCAGCAGGACGGCCG}
{\tt CCCCCGCGGCCGAAGGGCAAAAGCCCAACGGCAAGCAGGCUAUGAAUGCUAGGCGAACAAGCC}
{\tt CCCCGGCCGGCCAACGCCAAAUGGCGAAGGCCACCGCGACAAAGGAGCGGAGCCGAAGAACCC}
```

> 30 Corner bulge training .((((((((((((((((())))))...)))))). ACGCCGCGCCGCAAAGCGGCAAAAGCGGCGA

> 31 Spiral

> 32 InfoRNA bulge test

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCCGAAAAAGCCCAAAAGGCGAAAGGCGAAGCGG

> 33 Worm 1

AAAAAAACGUGGGCGGGUGGCUAGGUUACAGGGCGGUGGGCGGG

AAAAAAAGGCGUGUGCGUCUGCGCUAAUGGGUUGAGGGAGAGGGC

AAAAAAAGGUGCGCAGAUCGCCACGGAAGCGGGGAACGGGGGAGC

AAGUGAAGGCAAGAGGGUCGUGGCCGAGGGUAGGAGUGUGUAGGC

AUCGGGAGUCGCGAGAGAGGGGGUAUUCGCUGCUGUGGGGGUC

CAUUAGAGUCGGGUGCGGGGAGACGAAAGACUGCUGGGGGUGGUC

CGUUUAAGUCGGGUUCGAGGCGGCGCAAGGCGGCUGGCGGUGGUC

> 34 just down to 1 bulge

```
> 35 Iron Cross
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CGACCGAAAGGCACGCAAAAGCGACGCAAAGCGACGGAAACCGACGGAA GCAGCGAAAGCCACGCAAAAGCGACCGAAACGGAGGCAAAGCGACGGAAACCGACGGAA ${\tt ACCGAGGGAAAGCGACCCAAAGGGAGCCAAAAGGCACGCAAAGGGACCGAAAACGGACCGAAAC}$ GGACCCAAAGCGAGGGAAAACCCACCGAAACGGACGCAAACCCAGGCAAAGCCACGGAA ACGCACCCAAACCGAGGCAAAGCCAGCGAAAACGCACGGAAACGCAGCCAAAAGGCAGGCAAAG ACGCACCGAAACCGAGCGAAACGCAGGGAAAACCCACGGAAAGCCAGGGAAAACCCAGCCAAAGGCAGGCAAAGGCACCCAAAAGGGACGCAAAGCGAGCCAAACGGACGCAAAGCGAGCGAA CGAGGGAAACGGAGCCAAAAGGCACGGAAACCGAAACCCACCGAAACGGAGCGAA AGCCACGGAAACCCACGCAAAGCGAGGCAAAAGCCAGGGAAAAGGCAGCGAAAACGCACCAAAG GGAGCCAAACCGAGCCAAAAGGCACGCAAAGCGACGAAACCGACCGAAACGGAGGCAA AGCCAGCGAAACCGACGGAAACCGAGGCAAAAGCCACGGAAAGGGACGCAAAAGCGACCGAAAC GGACCCAAAGCGAGGCAAAAGCCAGCGAAACGCAAACGCAGCGAAACGCAGGCAA AGCCAGGGAAAGGGAGCGAAACGCACCGAAAACGGACCCAAAGGGACGGAAAACCGACGGAAAC CGACCCAAAGGCACCCAAAAGGGAGGCAAAGCCAGCCAAACCCACGGAAACCGAGGCAA AGCGAGGCAAAGCGACGGAAACCGAGCCAAAAGGCACGCAAAACCGACCCAAAAGGGAGCCAAAGGCACGGAAAGGGAGCGAAAACGCAGCCAAAGGCACCCAAAGCCACGGAAACCGACGCAA

> 36 loops and stems

...

> 37 Water Strider

> 38 The Turtle(s) Move(s)

AAACCAUAAAUAAGGUAAAGGCACGAACCAGUGCCAAAGGGCAAAAUGCCCAAGCGGCGAAAAA AAACCAAAAGGAAAAGGCGCCCCCAAAAAAAAGGGGGGCGCCAAAAACCGCAAAAAGCGGAAAAA GCGAAAACGCAAAGGCGCAAAAAAGCGCCAAAAGCCAAAAGCAAAAACCCAAAAGGGA AACGCAAAAAAAGCGAAACCCGGAAAAAACCGGGAAAAACGGCAAGCCGGCAAAAAAAACCAAAAGGAAAAGGGAGGCGCGAAAUGUAAGCGCCUCCCAAAAACGCCAAAAAGGCGAAAAA CGCAAAAGCGAAAGGCGCAAAAAAGCGCCAAAAGGCAAAGCAUAAGCAGAAAGCGUAAACGCA AAAGCACGCGAAAACAGCGUGCGAAAGGGUGAACCCAUGAAGGCCGCAAAAGGGAAAAAACCC AACCCAAAAAAAAGGGAAAGGGCCAUAAACGGCCCGAAGGGCUUAAUGCCCAAGCGGCCGAAGA GGGGUAACCCAAAGGCCCAAAAAAAGGGCCAAAACGCAAAGCGGGAGCAAAAACCCGAAAGGGA AAAGCCACGGAUAACAUGUGGCAAAAGCCAAAAGGCAAAAACCGGCCAAAAGGCGUGAGAAGCC AAGGCAAAAAUAAGCCAAAGAGCGGACCAACGCUCAAAGGCCAAACAGGCCAAGGCCGGAAAAAAAAGCAAAAGCAAAACGCCCCGCGAAAAAAAAACGCGGGGCGAAAAACCCCAAAAAGGGGAAAAA AAACGGCGCAAAAAAGCGCCGAAAAACGAAAACGUAAAAAGCCCGCAAAAACCGAAAAAACGG AAGGCAAAAAAAGCCAGAGCCCGAAAAAACGGGCAAAGCGCAAAAAGCGCAAGCGGGCAAAAAGCGAAAACGCAAAGCGCGAAAAAACGCGCAAAACCGAAAAGCAAAAGCAAAUAGCCGAAAGGCA AAAGCUGUAAGCAUAAUGCAGCAGAAGACAAAAGUCAAAAAGGGGGCAAAAGGGAAAAAACCC AAGGCGAUAGAUAGCCAAAGCCCGAUAAAGCGGGCAAAGCAGUGCAUCUGCAAGCCCCCGAAAA CGCAAAAGCGAAACCCCGAAAAAAACGGGGAAAAGCCAAAGGAAAACCAGAAACCGAAAUCGGA AAAGGCCGCAAAAAAGCGGCCAAAAGCAUAGUUGCAAAAAGCCCCCAAAAGCCAGUCUAAGGCAAGACAAUUAAAAGUCAAAGGGGCAACAAAGUCCCAAAGCCGAAUAACGGCAAGGGGGCAAAAA AUAAUCGCGAGAAAAAACGGAAACGAAAUAAGCUCCAUAAAUUAAAGGAGCAAAAAAGGC AAAGGGAAACCAAAAGGGGGCCGCAAAAAAGGGCGGCCCCCAAAAGCCGAAAGACGGCAAAAAGGCAAAAGCCAAAGGGGCGAAAAUAGCCCCAAAACGCAGAGGGAAACCAAAAAGGCGAAGGCCA AACGCAGUAUAAAGCGAAACCCGGAUGGUACCGGGAAACGGCAAAAAGCCGAACCCCCGAAAAA AAAAGGGACACCAAAAAGGGAAACCAAAAAAGGGGCAGGAAAAAUAGCCCCAAAAAAGCG AAAUCGCAAGAAAAGGACGGCGCAAAGAAAAGCGCCGUCCAAAAGGGCGAACAGCCCAAAAA GCCAAAAGGCAAACGGGGAAAAAACCCCGAAAACCCAUAUCGCAAGAAAAAGCCAAAAGGCA AAAGGCCCCAUAUAAAGGGGCCAAUAGGCAAAUGCCAAAAAGGCGGGAAAAAGGGAAAAAACCC AAGGCGAAUAUGGGCCAAAUAGCCGGUUUAGGCUAAAACCCCAAAAAGGGGAACGCGCCAAGAAAUAAUCGCAAGAAAAAUCGCAAGAAAAAUACCGGCGAAGAUAAUAGCCGGAAAAAGAGGG

> 39 Adenine

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))))))))))))))))))))))))))))))))))
{\tt CGCGGAGCCGGAAACGCCCGAAACGGCGCGCGCGCGACGCGCGCGCGAAACGCGC}
GGAAAGCGCGAGCCCGGAAAACGCCGCAAAAGGGGGGAAAACCGGG
\operatorname{GGCGCCACCCGAAAGGCCCCCAAAGGGGGCCCGGGACGCCGACGCCCGCGCAAACCGG
CGCAAAGGCCGACGCCCAAAAGGGGCCAAAACCCCCGAAAACCCGG
GGGAAACGCCACGCCGGAAAACCCCCAAAACCCCCGAAAACCCGG
GGGGCACGCGAAACCGGGCGAAACGCCCGGCCGACGCCCGACCGGGCCCGAAAGGCGG
GCAAACCCGGACGCCCAAAAGCGGCGAAAACCCGGGAAAACGGCG
GGGCCAGCGGAAACGGCCCGAAACGGGCCGCCCCGCACCCGGGACCGCCCCGCGCAAAGCCGC
GGAAAGGCGGACGCGCAAAACGGCGAAAACCGGCGAAAACGGCG
GGCCGACCCGAAAGCGGGCGAAACGCCCGCCGGGGGGGCCCAGGGGCCGCGAAACGCG
GCCAAAGCCCCAGCGCGCAAAAGCGCCCAAAACGCGGGAAAACCGCG
CCGAAAGCCGGAGCCGGGAAAAGGCCCGAAAACGGCCGAAAAGGCCG
{\tt CCGGCACGCGCAAAGCGCCCCAAAGGGGCGCGCGGGGGCACGCGGGGGCCCAAAGGGCC}
CCAAAGCCGGACGCCGGAAAACCGCCCAAAAGGCCGCAAAACCGCC
GGGAAACGGGGACCCCCAAAAGGGCCCAAAACCGCCGAAAACCCCC
> 40 Tripod5
..((((((((((....))))((((....))))))))...
AACCGCGCGCAAAAAGCGCGGGGAAAAACCCCGCGGAA
AACCGGGCCCAAAAAGGGCGCGCAAAAAGCGCCCGGAA
AACGCCCGGGAAAAACCCGGGCCAAAAAGGCCGGCGAA
AACGGGCCCAAAAAGGCCGGCCAAAAAGGCCCCCGAA
```

AACGGGGCCAAAAAGCGCGGGGAAAAACCCCCCCGAA AAGCCCCCCAAAAAGCGGGGGGAAAAACCCCGGGCAA AAGCCCGCCGAAAAACGCCGGCCAAAAACGCGGGGCAA AAGCCGGGCAAAAAGCCCGGCCAAAAAGGCCGGCAA AAGCCGGCGAAAAACGCCGCGGAAAAACCGCCGGCAA

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> 41 Shortie 6
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((...)).((...)).((...)).((...))

AGGAAACUCAGGAAACUCAGGAAACU

CCAAAAGGACCGAAAGGAGGAAAACCAGAGAAAUC

 ${\tt CCAAAAGGAGGAAAACCAGGAAAACCAGCGAAAGC}$

CCAGAAGGAGGAAAACCAGCAAAAGCACGGAAACG

CCGAAAGGACCAAAGGGAGCAAAAGCAGGGAGACC

GCAAAAGCAGGAAAACCAGGAAAACCACGGAAACG

GGAAAACCACCAAAAGGAGCAAACGCAGCGAAGGC

GGAAAACCAGCAAAAGCAGCAAAAGCACGGAAACG

GGAAAACCAGCAAAAGCAGCUAAAGCAGCGAAAGC

 ${\tt GGAAAACCAGGAAAACCAGCAAAAGCACCGAAAGG}$

> 42 Runner

AAAAACGGGAGCGGAAAAGCGCAAAGCGCACCGCAAAGCCCAAAGGGAAAGCGGGC GCGAAACGCAAAGCCAGGCAAACGCAAAACCCAAAAGGGAGCGACCCGAAAAA

> 43 Recoil

```
> 46 Triple Y
```

AAAAACGCCCCGGGCCCAAAAGGGCCAAAAGGCCCCGGGGCCGAAAACGCCGGCCAAA

AGGCCGGCCGAAAAAAAAAAAAAAAAAAAAA

> 47 Misfolded Aptamer

(((((.....((((((...))).((...)).....)))))

> 48 Flower power

AAAAAGCGCCGCCAAAGGCGAGGCCCCCAAAGGGCAACGCCAAAGGCGAACGGGAAACCCGGG

> 49 Kudzu

> 50 "1,2,3and4bulges"

AAAAAGCCCAGCGGCGGAAGCAGAUCGCAGGCUAAGGCCAGGAGCAAAACCGCAGGCGAAAGAA

> 51 medallion

CCCGCGAGCGCCAAAAGGCCGCAGAGGAAACUCAGAGGAAACUCAGGGCGGAAAACCGCCCAG AGGAAACUCAGACCUCAAAUGGGGUCAUAGGAAACUAAGAGGAAACUUACGCCCCAAAAGGGC GAGAGGAAACUCAGCCGCCAAAAGGCGGCAAAGGAAACUUAGAGGAAACUCACGGCCCAAAAGG GCCGAGCCAAAAGGCACAGGCUAACAAGCCUGAGAGGAAACUUACAGGAAACUGAGGGGGGAA AACCCCCCACAGGAAACUGACCCGUCAAAUGGCGGGACAGGAAACUGACGCAAAAGCGACCCGG CAAAAGCCGGGGACGCGGG

CGGCCCAAUAAGGGACACCUUAUAGCGGAAACGUAGGCAAAAGCCAGCGGGGGAAACCCCGCAC CCUAAAGGGACGCGCAAAAGCCGCGAGCGGAAACGCAACGGAAACGUACGGCCCAAAAGGGCC GAGGGGAAACCUACGCGGGGACACCCGCGAGGGGAAACCUAAGGGAAACCUAGUAAGGGAUAC CUUACAGCGGAAACGCAGGAGGGGACACCCUCCACCGAAAACGGACCGGAAACGGGGGCUGGGA CACCAGCCAGGGGAAACCCACCCCCGAAAACGGGGGGACCGGAAACGUAGGGAG GGUCACCUCCCAGGGCCG

GCGGCGAGUGUCCGUGAGGACACAGGGAAAACCCAAGGGAAACCUAGGCCGGAAAACCGGCCAG AGAAAACUCACGCGGCGAGAGCUGCGAGAGCCGAGAGGCAACCGUGAGGUACUGGGGGAGACCCC AGACCCGGGAGGGAAUUGCCGAAAGGCAAUAGCGGAGACGUAUCCGAAAGGAACGAGCAAAAA UGCUCGAACCGAAAGGUAGCCACCGAAAGGUGGCACGCAAUAGCGAACCGAGAGGUACGGGCCG AGAGGCCCGAUCGGAAACGAAGUGUCCGUGAGGACACAACGGAGACGUGAGGGAGACCUACGG

CCCAAAAGGGCCGACGCCGC

GGCCGCAGCCGAGAAAUCCGGCACCCAAAAGGGACUCGUAAGAAGUGUCGUAAGACACUAG GGGCAACUCAGAAGGCAAUAGCCUUCAGCCAAAAGGCAGUCGUAAGAUAGCGGCCGAAAGGCCG CGCUCGUAAGAGAGCCGCGAAAACGCGGCAGGGGCAACUCAGUCGUAAGACACCGCCGGAAACG GCGGACGCAAAAGCGAGCCGGCGAAGCCGGCAAUCGUAAGAUAGGGGCAACUCAAGGUUUGA AAGAGCCUAAUCGUAAGAUAUCCGCCUGAAGGCGGAACCGAAAACGGAAUCGUAAGAUAGACCG CAAAAGCGGUCAGCGCC

> 52 [RNA] Repetitious Sequences 8/10

.((.....((.....)).....((.....((....)).....((....)).....)).....)

AGCAAAAAACCAAAAA

> 53 Documenting repetitious behavior					
()					
$(\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots $					
))))))))))					
AAAAAAACCAAAAAAAACCAAAAAAAACCAAAAAAAACCGAAAAAUAAGCAAAAAAAA	J(
AAAAAAUAACCAAAAAAAAAGCAAUAAAUAAGGGAAAAAAAGCAAGAAAAAGGGGAAAAAAA	4/				
	7 /				

> 54 7 multiloop

 ${\tt CGGCGCGCGAAAACGCGCGCGAAAACGCGCGCCCAAAAGGGCCCCGCGAAAACGCGGCCCG}$

GAAAACCGGGGCCCGAAAACGGGCGCCG

>55 Kyurem 7

> 56 JF1

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> 57 multilooping fun
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((.(..(.(...).(...).)..)..(...)))
```

```
> 58 Multiloop...
```

CCGGAGGCAGAAAAGCCACGCAAAAAGCGAGCCAAAAAGGCACGGAAAAACGGACCCAAAAAGGGAGCCAAAAAGGGCCCCAAAAAGGGCCCGG

CGCGAGGGGACGCAAAAGCGAAAACCGAGCCAAAAGGCACCCAAAAGGGACCCAAAAGGGACCCAAAAGGGACCCAAAAAGGCACCCGCGGAAAAAGCCCGCGCGCAAAAGCCCGCG

CGGGACCGCAGCGAAAACGCAGGCAAAAAGCCACGGAAAACCGACGCAAAAAGCGACCCAAAAGGGAGCCAAAAAGGCGCGCGAAAAAGGCGCCCCG

GCCCACCGGACCCAAAAGGGAGGCAAAAGCCAGCCAAAAGGCAGCCAAAAGGCACGCAAAAGCG

AGCGAAAACGCACCGGAGCGCCAAAAAAGGCGCGCGAAAACGCGGGC

> 59 hard Y

CCCCUACUCGACCUCUGUAGUCAUAUAGAGCGCGGCAGGUCCCGCAAUCGGGGCCUGCAGUAC CCCC

>60 Mat - Elements & Sections

AAAAACGGCACAAAGAGGGGAGAGGCUUGGUCAGGACCCCCAAUCAUGGAGCGCCUGCGCAGCU

> 61 Chicken feet

AAAAAGCACCAGCAAAGCAAAGCAAAGGGCACCACGAGCAAAGCAAAGCAAACGGGAA AAA

AAAAAGCACGAGCAAAGCAAACGCAGAGGAGGAGGAGCAAAGCAAACCCCAA AAA

> 62 Bug 18

> 63 Fractal star x5

> 64 Crop circle 2

> 67 Simple Single Bond

.....(......(((((....))))......).....

> 68 Taraxacum officinale

CCCGAAAGAGGUAGCCCGAGAGUGGC

> 69 Headless Bug on Windshield

AGGAAGCCA

> 70 Pokeball

> 71 Variation of a crop circle

AAGAGCAAAACCAAAACCAGCCAGGCAUAGCAGGGAAGAGGAUAAAAGCGAAAAAGGGGAAAAAGGGGAAAAAUGGGCAUUAAUAGAAGAA

AGAAGCGAAGCCAUAAGCGGGACCGGCCAGACAGAGUGAGGAUAAGGGAAGAAGCGAGAAAGGGAGAAGAGGGAUAAUGAGUGAA

CAGAGCAAGACCAAUAGCAGAACGGAGGUGCGAGUCGUGCCGUUACGGAGUGGGCAAAAAAGGGGGAGAGAAAAAAUUAGG

UAAAGCGAGAGGAAAGCGAGACCAGCCAACGAUACGGAGGAAAAGGGAGGAAGCAUAGAGACCGAAAAGACAGCAAUACAAUAUAAG

 $\label{thm:caccgaugcgaugcgaugcggaugcggauaugcggauauacagc} UACACCGAUAGCGAAGCCAAGCGAUGCGGGAUGACGGAUAGGGAUAUACAGC\\ GAAUGAGAAGGGAAAAUUUAGAAG\\$

 ${\bf UAGAGGGAAAGCGAAGAGGAAGGGGGCCGUAGGUACCGAAGCCGAAAAAAAGCGAUUAAAAAACCAAGAUAGAAAAAU}$

UCAAGGGAAAGCGAAACGAAGCAACCAGAGGGGGGGGGAACGGAAAUAGGAAGAAAAG CGAUAAGAGACCAUACAAGAUUAGU

 ${\tt UCAAGGGAGAGAGAGGGGGAGCAGGGGUCCAUAGGCGGAUAACCGAGAAAAGGCGAGAAAAACCAUGUAUAAGUAAC}\\$

> 72 Loop next to a Multiloop

AACCGGGCCUGAAUGAGCACGCGGGAAAACCCGCGAGGCGACGAUAACGUCGCCAGAAAUUAAA GGCCCGGAA

 ${\bf AAGGUUCUUGAAUAAUACAAGUCUCAGUCGAGACUACGAUAGAAGUAUCUAUUGCGGGGCAAGUAGGAAUCAU}$ ${\bf AGGAAUCAU}$

 ${\tt CCACAGACCUGGGAUAACACCCCCGAAAACGGGGGAACGGGCCGUAAGGCCCGUAGGGAAAAAAGGUCUGUCC}$

 ${\tt CCGAGGCGCUACUACAGCACCGGGCUAAUGCCCGGAGCCCGGCAAAAGCCGGGCCGAAAUCUGGGCGCCUCCC}$

 ${\tt GGGUCGGGAAACCGCGGCAGAAACGGCCCCAUUAGUACCCCUACUAAUAGAGAAAUGU} \\ {\tt UCCCGGCGG}$

 $\begin{tabular}{ll} UACGCACCAAAGAAGAGCGCGCCGCUAGGGUGGCGACGAGUAAGGUGUUAUUCGAGAAAAAUGUUGGUGCGAG\\ \end{tabular} \label{tabular}$

> 73 Snowflake 4

CGCGAAACGCGCGGAAAACCGCCCCAAACGGCGGAAUACCGCCCCGGGGAAUCCCCAAGG CCAAAGGCCGGGGCGCAAGUGCCGUAAGCGCCGGAGUACCGCGACGGCCAAAGGCCCACGC AAAGCCGGUCGCGCAAGUGGCGCAAGCGCCGGAAAACCGCCCCGGUGCAACACCCAAGGGCAA AGCCCGGGGCGCAAGUGGCGCAAACGCCGGAAAACCGCGGGGGGAAUCCCCAAGGGCAA GCCCGCGCGCGCAAGUGGCGUAAGCCCCGGAAAACCGCGGGUGGUACAUUACCAACGCCAAAGG CGACCGCGCGCAAGUGGGGCAAGGGGCGCAAGUGUCGGACCCGAGGGGU

GCGCAAAGCGCCGGAAACGGCCGCAACCGCCGCAAAAGCGUCUCGCGCAAAGCGCUAAU GGAAACCGUGAGACCGGGAAACGGGCGGAACCCGCGCAAAUGCGUCUCCCCCAAAGGGGUAGGCC AAAGGCCGAGAACGGCGGGAACGACGCCUAUAGCCCGGCCCCGAAACGGGAACCACGA UGUGGGCCGGCAAACGGCUCGAACCGGCGCAAAAGCGGCCCAAAGCGCCAAAGCGCCCAAAGCCCCAAAGCCCCAAAGCCCCAAAGCCCCAAAGCCCCAGUGGG GCCGGGCGGAAACGGCCGAAACCCCAGUGGG GCCGGGCGGAAACGGCCGAAGCCCGAAAGCCCCAGCCCAGUGGC

GGCCAGUGGCCCCGCGAAAGCAGGCGAAGCCCCGGUAAACCGCGACCACGAGCAUGGCUCAAGA CCAAAGGUCGUCGCCCAAAAGGGGGGCAAGCCCCAGUGAACUGGCCCGACCAAAGGUCAAGGC GUUGCCCGGGCCCCGAAAGGGGGGCAAACCGCAGUGAACUGGCCCGCGGAAACCGCAAGGGCGU AGCCCGGGCCCCGUAAGGGCGGUAAGGGGCGCGAAAGCGGCGCGCAAAGCGCAUGGGCGUG GCCCGCGCCCGGGACACCGCCCCAAACGGCAGUGAACUGGCCCGCGCAAAGCGCAACCGGAAACC GGGGGCCCCAUAAGGGCCGUAACGCCUGGGACACCGGGGCGCAAAGCGC

GGCGAAACGCCCGCCCAGGGGACUGCCGCAAGCCGGGCGAGAGCGAGGGGGGCAAAGCCCAAG GCGAAACGCCCCCUCGGGAGACCCCGGCAAUCGCCAGGAGACUGACCAGCGCAUAGCGCAUCCG GAAUCCGGUGGUCGGGGGACCGGCGAAAGCGCCAGGGGACUGGCCCGGGCAGAGCCCAACCCCA UAGGGGGGCCGCGGGAGCGCGCAACCCGCAGGGGACUGCCCCCCCGAGACGGGAAGCGGAA ACCGCGGGGGCGCGAGAGCGCGGGAAACGUAGCGGGAGCGCAGAGGCCAAGCGCAAA GCGCGCUGCGGGGGACCUGCGUAAGCGGCGGGAGACCGGGCCCCGAAACGGG

GGCGAAACGCCGGGCGCAAAAGCGGCCGAACAAGGGCGUGAGCGGCCCGACCACUGGUCAAG GCCAAAGGCCGGGCCUCGCAAGACCUUGAAUCUCCGCAAGAGCGGCCCGACCUCAGGUCAAGGG CAAAGCCCGGGCCUCGCAAGAGGGGAAACGGCGGCGUGAGCCGGCCCGACCACUGGUCAAGGCCU AAGGCCGGGCCUCGCAAGACGCCGAAGGCGGGGAAGACCAGCCCGACCUCAGGUCAAGUCCACU GGGCGGGCUUCGCAAGACCGCCAACAGCGGCAAAAGCGGACCCUGGACACCGGAGAGGCAUAGC CUGGUCCUCGCAAGACGCUGAACGGCCUCGCAAGACGCCCCUGCAGUGCGG

> 74 Mat - Cuboid

> 75 Misfolded Aptamer 6

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\dots (((\dots (((\dots (((\dots (((\dots ())))\dots ))))\dots ))))\dots )))
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> 76 Snowflake 3

CCCGCAAAAGCAGGCAACGAAAGUUAAGGGCAGAACAAGACGAAGGUCACCAGCGAAAGCCGCA
AAGCGGGGAAACCAGGUGGCAAAAGCCGAGUUCACGACAACGCAAAAGCGACGAGCGAAAAGCGC
CGUUGGCGGGAAACCACGUGCAAAAAUGCAAGUCGAGCACAACCGAAAACGGCCCACCAAAAGG
GGCAAAGCCGGGAAACCAGGGGGCGAAGGCCAAGUGCGGCGCAAGGGAAAACCCACCAGCGAA
AGCGCCGUAGGCGGAAACCAGGUGCCAAAAGGCAAGCGCAGCCCAAGGGAAAACCCACCAGCG
AAAGCGCCGUAGGCGGAAACCAGGUGCCAAAAGGCAAGGCAAGGCAAAGGCCCAAGGCAAAGGCCCACGGG
GGACACCGGG

CCCGGGCAACUACCGCAUACAUGCAAGGGCACACCCAAAAGGGUCCAUCGCGAGACGCA AAGCGGGGCAACUAGGAGGCAGAAGCCAAGCUGAGACCCGAAAGGGUCCAUCGCGAGAC GCAAAGCGGGGCAACUAGGAGGCUUAAGCCAACGUCAGACCAAGGGAAAACCCUCCAUCGCGA AGCCAAAGGCGGGCAACUAGGAGCCAAAAGGCAAGGUCAGACCAAGGGAAAACCCCCCAUCGCG AGAGCCAAGGGCGGCAACUAGGGGCGAGUACGCAAGGUCAGCCGAACCCGAAAGGGUCCAUC GCGAGAGCCAAGGGCGGCAACUAGGAGCGAAAACGCAACGCAACGCAAAAGCGCGGA GCUAAAGCGGG

CGCCCAAAAGGACGCGGGUGAACCCAACGCCAGGCAAGGCGGAAGCCGCCAGCUUAAGCGCCA
AAGGCCCCGGGGGAGAACCCAAGCCCAGGCCAAGAGUGAACUCGCGAGCAAAAGCG
CCAAAGGCCCAUAAGGACGCCCAAAAGGCAAGCCCAGCGCAACGGAAAACCGGCCAGCAAAAG
CGCCAAUGGCCCAAAAGGAGGCGACGGAAGUCAAGCGCAGGGAAGACCGAAGUCCCGAGCAA
UAGCGCCGAUGGCGGAAAACCACGGGGGUGAACCCAACCCCAGCCGAAGGCAAAUGCCGCCAGC
AAAAGCGCCAAUGGCCCAUAAGGAGGCACGAAAACGUAACGGCAGGCGAAGACGGAAGUCGCGA
GCAAUGCGCG

GCCGCGAAAGCACCGGCCAAAUGCCAAGCCCACGCCAACCCGAAAGGGCCAUCGCAAGAGCCAUCGCGAAGAGCCAUCGCGAAAUCCAGGCGCCAAUGCCAAGGCGACCAAAUGGUGCCAUCGCAAGAGCCAUCGGCGGAAAUCCAGGCGGCAAAUGCCAACUCGACCCGAACCCAAAAGGGCCCAUCGCAAGAGCCCAACGGCGGAAAACCAGGGGGGGAUAUCCCAACGGGACCCGAACCCAAAAGGGGCCAUCGCAAGAGCCUUCGGCGCAAAUGCAGGGGAAACUCAACGGGACCGGAACCCAAAAGGGGCGAUCGCAAGAGGCCUAUGGCGGAAAUCCACGCGGAAACCGAACCGAACCGAACCGAAAGGGGCGAUCGCAAGAGGCCUAUGGCGGAAAUCCACGCCGGAAACCGAACCGGAGGCAAAAGCCCGGAUCGCAAAAGGCCCGGAAAUCCACGCCGGAAAACCGAACCGGAGGCAAAAGCCCGGAUCGCAAGAGGC

GGCGCGCAAGUAGCCGACGAGUGUCAACCGCAAGCGAAGGCGAAAGCCGGCAGCGGAAGUCCCA
UAGGGCCGGAAGGACCGCGAGAACGCUAGGGGAAGGCAAACCCGGGAGCGGAAGUG
GCAAGGCCCCGGAAGGACCCGCGAAAACCCCAGGGGAAGGCGAAGCCCGGAGCGGAAG
UGGCGAAGCCCCGGAAGGACCCGCGGAAACCCCAGGGCAAGGCGAGACCUGGGAGCGG
AAGUGGCAAGGCCCCGGAAGGACCCGCGGAAGCCCACGGCAAGGCGAAGCUGGGAG
CGGAAGUGGCAAGGCCCCGGAAGGACCCGCGGAAACCCCACGGCAAGGCGAAGCCCGG
CAGGAAAACCCCC

> 77 Hard Y and a bit more

> 78 Mat - Lot 2-2 B

GGUCGGAAGCAGACGAAAAGGAGGCGCGAGAGCUUUAGCAACCCGGACUAAAAAGCAACCGCU GGCAACCAAGGGGAAGCAACCAGUGCUAAGACGGAAACGAGUGCUAAAAAGGGGGCCC AACCGGAACCAAAAAGGGGAAGCAGGACGAAUAGGAAGCCGGAAACGAAUAGCAACCCGGA CUUAAAGCAACCGGAGCCAACCAAGGGGAAGGAAAAGCAACCAGUGCUAAGACCGAGAGGAGUG CUAGAAGGAAGCCCAACCGCUGGCAAGGUC

> 79 Shapes and Energy

> 80 Spiral of 5's

CCGAUUUAUGCGCCCU

> 81 Campfire

CCCCCGAAACCCGCAACGGCAAGCACGAAAAGUGCGGAGCGAUACGCAUCCGCCGGGGCCCAG GACCAGCCCCAAAUGGAGGCGGCCGGGGGAGGAGGAGAAAACGCCCCCCGGACCGGAAACGCG CGCGGAACCACCGGGGACCCGCGGGGCCAGGCACGCAGGCGAGAGCCCGCGGGCCCCGGGGGCA UAGCCACCACGGAGGCUCGG

CCCCCGCCAACCGUAAACGGCAAAACCGAUCAGGUUGCGGGCAAUGCCACGCGCCGGCUUCCAG GACCUCAGCGGGAACGACUGGGCCGCCGGAGGAGGACCAAAAGGCCCCGGGGACCGGAUACGC GCGCCCAACCAGGCGGAUAGCUACGGGGGAGCCACGGACCGCGUGUGCGGCCGGGCGCACCCCC ACGGGGAGGUUGCACCCGGCG

> 82 Anemone

AAAGGCGGCAAAAGCCGCCCGGGAAAACCCCGGGAAAACCCGGGCCGGGAAAACCCGGG GCCGGAAAACCGGCCGCGCAAAAGCCGCCCCGGAAAACCGGGGCCCCAAAAGGGGGCACCGG CAUAAGCCGGGCGGCAAAAGCCCGCGCGCGAAAACGCCGCCCGAAAACGGCGCGCGAAA ACGCCGCCCCCCAAAAGCGGGG

```
> 83 Fractal 3
AAAAACCCGACGGAGCAAAAGCGGAAAACCACCGACCCAGGAAAACCGCAAAAGCAGGGAGCGA
CCAAAAGGGGAAAACCACGCAGGGACCAAAAGGCGAAAACGACCCACGGGAAAAA
GGAAAACCGGAAAACCACCCAGGGAGCAAAAGCGCAAAAGCACCCACGGGAAAAA
AAAAACCGGACGCACCAAAAGGCCAAAAGGAGCGAGCCACGAAAACGGGAAAACCAGGCACCCA
GCAAAAGCGCAAAAGCAGGGAGGCAGGAAAACCGGAAAACCAGCCACCGGAAAAA
AAAAACGCCAGGGAGGAAAACCGCAAAAGCACCCAGGGAGCAAAAGCGCAAAAGCACCCAGCCA
GGAAAACCGGAAAACCAGGCAGCCAGCAAAAGCGCAAAAGCAGGCAGAAAAA
GGAAAACCCCAAAAGGAGCCAGCGAGCAAAAGCCCAAAAGGACGCACGCGAAAAA
CCAAAAGGCCAAAAGGACGCAGGCACCAAAAGGCCAAAAGGAGCCAGGGCAAAAA
GGAAAACCCCAAAAGGACCGAGGGAGGAAAACCGCAAAAGCACCCACGGCAAAAA
AAAAAGGCCACGGAGCAAAAGCGCAAAAGCACCGAGCGACCAAAAGGCCAAAAGGACGCAGCCA
{\tt CCAAAAGGGCAAAAGCAGCAGCAAAAGCCGAAAACGAGCGAGGCCAAAAA}
> 84 Kyurem 5
```

> 85 Snowflake Necklace (or v2.0)

GGCGCCGGGGGGGGGGCAGCAAGUAGCAGCGAAAAAGCACCAAAAAGGAGGAUCACCAG
GAAAAACCAGCCGCAGCGAAGAUCGCACCGGCAGCAAAAAGCAGCAAAAAGCACCUAAAAGGAC
CAAAAAGGAGGAAAAAACCAGCCGGAGCUUAGAAAGCACCGCCAGCAAAAAAGCAGCAAAAAAGCAC
CAAAAAGGACCAUAAAAGGAGGAAAAAACCAGGCGGAGGCGUAAAGCCACGGGCAGCAAAAAAGCAG
CAAAAAGCACCAAAAAAGGACCAUGAAGGAGGAAAAAACCAGCCCGACCCGUAAAGGGACGACAG
CAAAAAGCAGCAAAAAAGCACCAGAAAAGGACCAUGAAGGAGGAAAAAACCAGUCCGACCGCCGCG
GGCGCC

> 86 Methaqualone C16H14N2O Structural Representation

GGCAGUCCCAUGGUAAUUAAGGCCGGCCAGACGAAAGUCGCUGAGAGGCGCCGAAAGGCGGCA GCAAACCCCAGAAACACGCAGGGGGGCAGCCAGGCGAAACCCAAUAGGGAGCCACGCAAAGGCG AGGCACCAAAAAUGGAGCCGCCGAAAACGGACCCACCCGGCAAAAGCCCCCCAAAAGGGACCGAA AACGGGGGAGCGAGGGGAAAGCUGACCGGAAAAAAA

AAAAAAAGCCGAGGGCACCGAGGGAAAACCCAGCCAGGUGAAAACCAGGCACGCAAAAGCGAGC
GAGCGGAAACGCAGCCGAUAAAAAGGCACGCAGCCAGGCACGAGAAACCCAGCCCAGCCCGAAGCA
GGCAAUCCAAAGGUAAAUAUGGCCAGCCAGGUGAAAACCGAGGAAACUCGCCUAAAGGCGGCAG
CAAACCACACAGAGACCGACGCAGGCACAGACGGAAUACGCAAUAGCGACCGAGCCAAAAGGCA
CUGAGGCCCCAGCUAGCCAGCCUAAAGGCAGCGACGCCCCCAGGCCCCUAAUGGGAGGUGAU
UACCGCGACGGAGUGGAAGGGGCACGGCAAAAAAA

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> 87 Cat's Toy 2
> 88 Zigzag Semicircle
....((((((((((....)).).).)))))....
AAAAACAAGGGCGCGGAAGGACUCACUUGUAAAA
AAAAACCGGGGCGCGAAAGGACUCACCGGUAAAA
AAAAAGCCGGGCGCUUCGGGACUCACGGUUAAAA
AAAACCAGGGGCGCGAAAGGACUCACCUGGAAAA
AAAACCCGGGGCGCGUAAGGACUCACCGGGAAAA
AAAAGCGAGGGCGCGGAAGGACUCACUCGCAAAA
AAAAGGCCGGGCGCAAAAGGACUCACGGCCAAAA
CAAAAACGGGGCGCGUAAGGACUCACCGUUGUGG
CCCCGGCAGGCCGCGAAGGACUCACUGCCCCCC
CCCCGGCUGGGCGCGAAAGGACUCACAGCCCCCC
> 89 Short String 4
\dots ((.((..((..((..((..((..((...))))..)...(.((..((...))..))..))..))..)))))...
> 90 Gladius
> 91 Thunderbolt
{\tt CCAACGGGGAAAAAAAGUCCAAGGUCAAAAACGAAAGAGACCCAGCGUAAAAGAACCAAAAGA}
CCCGGUAAACGGGAAAAAGGAAAGCAACCAAAGAAAGAACAAAUAAGGACAAGGAAGCAAAAA
CGAAAGACACGAAAAACGGGAAUGCAACCGCAAAGGGGAAGAAAAACCGGGGCCAAACGAUUAU
ACAACAGCUUAGCAGGAGGAAAAAAGGAGGGCCAAAUAAAACGUGAAAAAGCCGGCGAAGCCG
GCAGCAACCAAAAAGAAAAAGGAAGCAAAGAUAAAGGGCGGAAACGGGGGCGUGAACAGAAAU
CCCCGGAGGA
GCAAGAGCCAAAAAAACGCCGAGCUGAAGAAGAACACGGCGCGGAUAAUAAAAGCAUAAAA
```

AAGAAAAAGCCGCCAGGGACAGAUCCGCGUGAAAAAAACGUGGAACGGCAAGAAGGAUAUAACAGGGUUUGCUA

> 92 Mutated chicken feet

AAAAAAAGGACCAGGAUACCAGCGAAGCAGAGCCAGGAGCAGGAUACCAGCAGAGCAGAGCCC ACCACCACGAAACGAGCAGAGCAGAGCAGAAAAAAA

AAAAAAAGGAGCACCAAAGGAGGAUACCAAAGCCCAGGAGGACCAAAGGACGAAACCACCC AGGACCACGAAACGAAAGCAAAGGCCAUAAAAG

 $AAAAUAAGGACCACGAAACGACCAAAGGAAAGGCCAGGAGCAGGAUACCACGAAACGAAAGCCC\\ ACCACCACGAAACGACCAUAGGAAAGGGGAAAAAAA$

 $AAGAAAAGCACCACGAGACCAUAGGAAAGGGCAGCAGCAGGAUACCAGGAUACCAAAGCGC\\ AGGACCAGCAAAGCAGCAAAGGCCAAGAAAA$

> 93 Chicken Tracks

> 94 Looking Back Again

ACCCUGUAAAGGGGCAGAACGGACAGCACCUGAAGGUAAUCUCGGAAUUGGGCUCCCAGGGGC ACCCCAAAAAAGGCCCCCCAAGAAUAUGGGGGAGAACCCCGGGGAUAGGCAGGGGAGCCAAAAAA GCGGACCCAUAAGGGUCCAUGGGGCAGAGCAGCCGGAAACCGGCAACCCGCAGAAGCCUGCCCC AAAGGC

UCCAAGCGAUAAACCGUCCAAUGGGGCGACCGUAAGGCGGAACCGAUACGGCCCAGCGG
GAGGAGCCGAAAGCUAAAACCCGCAAGCCAACGCAAGCAGGCCAAAAAAGGGACGAAAGUCCCA
GGUAAGGCGGCCCGGGCCUAAGGCCCGCGGCAAAGCCGCGCAGAGGCAGGGUCAAGGGUGGGG
GGGUUACGCAACUAACAGUUCGGUCAGCUGCGCAAGUAAACUCUGUAAAGGGCCCUGCAGCGC
AGAGCAAAUAGGCCGCCCAAAAAAAAACCGGAGAAUCCGGGGGCAAAGGCAGCUCGGCGAAUUAA
GCGGGGUGUUAGCACCCCAACCCGCAAAGCACUAACAAAGUUGGAAGGGCCAAAACGCCGGCGC
AAAGGA

> 95 Multilooping 6

> 96 Cesspool

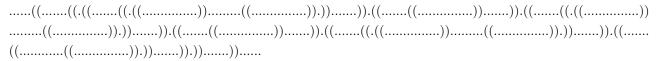
> 97 Hoglafractal

> 98 Bullseye

 ${\tt CGCCAAGAGCGGAAAAAAAAAAAAAGGGCUCAUUGAGCAAGCCGGUACGCAAGAGCAUGGCUCCCGAAA}$

> 99 Shooting Star

> 100 Teslagon



1.2 V2T04

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> 1 Simple hairpin
(((((((.....))))))
CCCCCAAAAAAGGGGG
CCGCGAAAAAACGCGG
CGCGGAAAAAACCGCG
CGGGCAAAAAAGCCCG
CGGGGAAAAAACCCCG
GCCCCAAAAAAGGGGC
GCCGCAAAAAAGCGGC
GCCGGAAAAAACCGGC
GCGGGAAAAAACCCGC
GGGCGAAAAAACGCCC
> 2 Arabidopsis Thaliana 6 RNA - Difficulty Level 0
{\tt CCGCCGGAAAAGGGGAAAAAAAAAACCCGCCCGCGAACCCGCGCGCGCGCCCCGCGAAAGCCC}
GAAAAAACGCCCAGGGCCCAGGGGCCCGGCGAAGCCCCGCCAAGCGCGCG
{\tt CGGCCCCAAAAGCGAAAAAAAAAAAACGCCGGGGCCCAAGGGCGCGCCCCGCCCCGAAACCGC}
GAAAAAACGCGGACGGGCAGGGGCCCCCAAGGGCCCCGAAGGGCCC
GAAAAAACGCCCAGGGCGCACCGCCCGGCGGCCAAGCGCCGGGAACGGGCCG
CAAAAAAGGCGGACGCCGACGCCGCCGAAGGCCCCCAAGCGCCCG
{\sf CAAAAAAGGCCGAGGGCGCACGCCCCCGCAAGGGGCCGCAAGGCGGGC}
GCGCCCGAAAACCGAAAAAAAAAAACGGCGCCCCAACCCGGGCGCGCGCGCGCGAAACCCC
GAAAAAACGGGGAGCCGGCAGCGCCCCGGGAAGGGCGCGAACGGCCC
GCGCGCGAAAAGCCAAAAAAAAAAAGGCGGGCCCGCAACGGGCCCCCGGGGCCGCGGAAAGGGC
GAAAAAACGCCCACCGCGCACCCGGGCGCCCGAAGCGGGCCCAACGCGCGC
{\tt CAAAAAAGGCCGACGCGGCAGCCGCGGGGGGAACGCCGGGCAAGGGCGCC}
> 3 Prion Pseudoknot - Difficulty Level 0
((((((((((((...)))))))))))))
CCGGGCACCGCAAAAGCGGGCCACGGAAAAAAAAA
GCCCCCAGCGGAAAACCGCGGGAGGCAAAAAAAAA
GCCCGCACGCGAAAACGCGGCGAGGCAAAAAAAAA
```

> 4 Human Integrated Adenovirus - Difficulty Level 0

AACGCCCGGGGCCAACCACCGUCCAUAGGCGGUGGAA

AACGCGGGAGAACAAACGUUCUCGAGGGAAAAACGGGAAGGCACCGCGCGCAAAACGCGCAA AAGCGGGCCCCCGAAGCGCCCCAAAAGCGGCCGCAA

AACGUUACAGUGAGCGCUCAUUGGGAGGAAAAAGCGCUACGCACAGCGCGGGAAGACCCGCAA AAGCUGGCGGCGAACCGCGGGGAAAACCCCGCGGAA

AAGGCAAAAACCCACAGGGGUUUCAGGCAAAAACCGGUAGGGACCCCGCCGAAAACGGGCAAAAGGGGGCCCCGGAAAAAGCCGCGCCAA

AAGGCACCACGGUGCAGACCGUGACGCCAAAAAAAGCCCAAGCGACCCCGCCGAAAAAUCGGCGAAAAGGGGGCGCGGGCAAAAAACGCCCGGCAA

 $AAGGGACGAUGUAUACAUAUUCUGCGCAAAAAAGCCGAACCGAGCGCGGGGCAGAAGCCCCGU\\ AAGCGCCGGCGCAAGGCGCCACAUACGUGGCGCCAA$

AAGGGCCCCCCCCAAAGGGGGAAAAAAAGCCCUUGCGAGCCCCCCCGAAAGGGGGAAAAGGGCCGCGGGCAAGUAGACCAGAUAUGGUCUGCAA

```
> 6 Saccharomyces Cerevisiae - Difficulty Level 0
GGAAAAAACCGCGCAAAAGCGGGAAAAAACCCGCCCGGGCCAAAACGGGGCGAACGGCAAAA
{\tt CGGAAAAAAACCGGGCAAAAGGGGGAAAAAAACCCCCCGGGCCCAAAAGGCCCCGAAGGCCAAA}
```

CCAAAAAAGGGCGCAAAACGCGCAAAAAAAGCGCGGGGGCGCGAAAAGCGCGCGAACCCCAAAA AAAAGGGGGGGGAAAAAACCCGCCAAAACGGGCAAAAAAGCCCGCGCGCGCAAAA ${\tt CCAAAAAAAGGGGCGAAAAGGGCCAAAAAAGGCCCGGCAAAAGGCGGGCAACCGCAAAA}$ GCAAAAAAGCGGCGAAAAGCCCGAAAAAAACGGGCCCGCGGGAAAAGCGGCCCAAGCGGAAAA

```
> 7 Fractal 2
```

```
> 8 G-C Placement
```

(((((...)))).

CCCCAAAGGGGA

CGCGAAACGCGA

CGGCAAAGCCGA

CGGGAAACCCGA

GCCCAAAGGGCA

GCGGAAACCGCA

GGCCAAAGGCCA

GGCGAAACGCCA

GGGGAAACCCCA

> 9 The Sun

CCGACCGGGCGAAACGCCAACGGCGGAAAGGGAGCGCCGAAACGCCAACGCCCCAAAGGCACGCCCGGGAAACCGGAACCGGAACCGGCCAAAGGCACGGCCAAAGGCCACGGGCCAAAGGCCACGGGCCAAAGGCCAACGGGGCAAACCCGACGCGCCAAAGGCCAAAGGCCAAAGCCAACGCGAAACCCCAACGCGCAAAGCGACGCCCCAAACGCGCAAAGCCAACGCGGGGGAAAGCCCAACGCGGC

 ${\tt CGGACCGCCCAAAGGGCCAAAGGGCCGAAAGCGAGCCCCGAAACGGGAAGGCCGCAAACCGAGC}$

```
> 10 Frog Foot
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 $\dots (((((\dots))))((((\dots))))((((\dots))))$

> 11 InfoRNA test 16

CCCGGGACGCGGGCAAAAGCCCCAGCAGACCCGGG CCGCCCAGCGCGGGAAAACCGCGACGACAGGGCGG CCGCGCACGCGCGCAAAAACGCGCAGCAGAGCGCGG CGCCGCACGGGCGGAAAAGCCGCACCAGAGCGGCG CGCGGCACCGGGCGGAAAACCGCCACGAGAGCCGCG CGGGCGAGGCGCCGGAAAACCGGCAGCACACGCCCG

> 12 Mat - Martian 2

> 13 square

AAUAAAUUUUUAAAAAAUUUUUUAAACCCUUUAAACCCCAAAUUUUCCCCUUUAAACCCCAUUUA

AUAAUAAUUUUUAAAAUAUAUCCCAUAUAUCCCCUUUAAAAACCCCUUAUU AU

UAAUUUAAAAUUUUUAAAAUUUUUAUCCCAUAAAACCCCUUUAAAACCCCAUUUUACCCCUAAAU
UA

UAUAUUUUAUUUAUUUAUUAUAUAACCCUUAUAUCCCCUAAUAUACCCCAAUAAACCCCAUAUA UA

UAUUAUAUUAAAUCCCCAUUUUACCCCAAUAAAUCCCCAUUUAACCCCUAUAA UA

UAUUUUUAAUAUAAAAUUAUUUCCCAAAUUACCCCUAAUUUUCCCCUAUAUUCCCCAAAAA UA

> 14 Six legd Turtle 2

AAAAAGGAAAGGAAAACCAAAGCAAAAGCAAAGCAAAAGCAAAAGGAAAGGAAAGCAA

ACCAAAAGGAAACCAAAAAAAAAAAAAAAAAAAA

> 15 Small and Easy 6
(((((())(()))))
CCCCCAAAAAGGAAGCAAAAAAAAAGCGGG
CGCGGAAAAACCAACCAUAAAAAAAGGGCG
GCCCCAAAAAGGAAGGAAAAAAAACCGGC
GCCCCGGAAAGGAAGCUAAAAAAUGCGGC
GCCGGAAAAACCAACCAAAAAAAAAAGGGGC
GGCCCAAAAAGGAAGCAAAAAAAAAGCGCC
GGCCCAAAAAGGAAGGAAAAAAAACCGCC
GGCGGAAAAACCAACCAAAAAAAAAGGGCC
> 16 Fractile
$\dots \dots \dots ((\dots)) \dots ((\dots ((\dots)) \dots ((\dots ((\dots)) \dots)) $
AAAAAAAAAAAAACCAAAAGGAAACCAAAGGAAAACCAAGCAAAGCAAAGCAAAGCAAAGCAAA
GCAAAGGAAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAACCAAAAGGAAAGGAAAGCAAAAGCAAACCAAAAGGAAAGCAACCAAA
GGAAACCAAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAACCGAAAGGAAAGCAAAGCAAAGCAAAGGAAAGGAAAACCAAACCAACCGAA
GGAAAGCAAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAGCAAAAGCAAACCAAAACGAAAGGAACCAAAGCAAAAGCAAAGGAAGCAAA
GCAAAGGAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAGCAAAAGCAAAGCAAACCAAAAGGAAAGGAAACGAAAACGAAACCAAGCAAA
GCAAAGCAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAGCAAAAGCAAAGGAAAGGAAAACCAAGGAAACGAAAACCAAGCAAA
GCAAACCAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAGGAAAACCAAACCAAAGCAAAGCAAAGCAAACCAAAAGGAAAGCAAGGAAA
CCAAAGGAAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAGGAAAACCAAAGCAAACCAAAAGGAACGAAACACAAAACGAAACGAAACACAAAACAAAACGAAAACAAAACAAAACAAAACAAAAAA
GCAAAGCAACCAAAAGGAAAAAAAAAAAAAAAAAAAAAA
AAAAAGAAAAAAGCGGAGGCAAAGGAAACCAAAAGGAAGCGAACCGAGAGGAUAGCAAGCGCGAAAAGGAAAAGGAAAAGGAAACCAAAAGGAAACCAAAAGGAAACCAAAAGGAACCGAGAGGAUAGCAAGCGCAAAAGGAAACCAAAAGGAAACCAAAAGGAAACCGAAAAGGAACCGAGAGGAUAGCAAGCGCAAAAGGAAACCAAAAAGGAAACCAAAAAGGAAACCGAAAAGGAACCGAGAGGAUAGCAAGCGCAAAAGGAAACCGAAAAAGGAAACCGAAAAGGAAACCGAAAAGGAAACCGAAAAGGAAACCGAAAAAA
GGCAAACCAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAUAAAAAAGGGGAAACCAAAGCAAAGGGGACCAAGGAAAGGGAAACCAAGCCAAGCGAAGCGAAGCGAAGGGAAACCAAGCCAAGCGAAGGAAGCGAAGGAGAAGCGAAGGAAGCGAAGCGAAGGAAGCGAAGGAAGCGAAGGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGCAAGGAGAAGA
AGCAAAGCAAGCGAUAGCAAAAAAAAAAAAAAAAAAAAA
> 17 Six legd Turtle
$\dots ((\dots ((\dots))\dots ((\dots))\dots ((\dots))\dots ((\dots))\dots ((\dots))\dots ((\dots))\dots))$
AAAAACCAAAAGCAAAAGGAAAACCAAAAGGAAAACCAAAAGGAAAAGCAAAAGCAAAACCAA
AGGAAAACCAAAAGGAAAAAAAAAAAAAAAAAAAAAAAA

AAAAACCAAAACCAAAAGGAAAAGGAAAACCAAAAGCAAAAGCAAAAGCAAAAGCAAAAGCAAA

AAAAACGAAAACCAAAAGGAAAAGCAAAAGCAAAAGGAAAAGCAAAAGGAAAAGGAAA

> 18 snoRNA SNORD64

> 19 Chalk Outline

> 20 InfoRNA bulge test 9

CGCCGGGACAGAGACGGCGGGAAAACCCGCCGCCGCCGGCG

CGCCGGGAGAGACCCCGCGAAAACGCGGGGCCCCCCGGCG

CGGCGCCACACACGCGGCCAAAAGGCCGCGGGGGGCGCCG

GCCCGGGACACACGCCCGGAAAACCGGGCGGGCCCGGGC

GCGCCCACAGAGACCCGGCGAAAACGCCGGGCCGGGGCGC

GGCCCGGAGACAGAGCCGGCCAAAAGGCCGGCCGCCCGGGCC

GGGCGCGAGAGAGACGCCGCCAAAAGGCGGCGCCCCGCGCCC

> 21 Tilted Russian Cros

AAAAAGGCCCGGCAAAAGCCGGCGGAGGGGAAAACCCCCGGGGAAAACCCCGAGCGGAAAACCG

AAAAAGGCCGCGAAAAACGGCCCGACGCGAAAAACGCGCGCGAAAACGGCGAGCCCAAAAGGGAAAAAGGCGGGGCAAAAGCCCGCGGAGGCGAAAACGCCCCCAAAAGGGGCACCCGAAAACGG > 22 This is ACTUALLY Small And Easy 6 CCCC > 23 Shortie 4 ((....)).((....))CCAAAAGGACCGAAAGG GCAAAAGCACCGAAAGG GCAAAAGCAGCGAAAGC GCAAGAGCACCGAAAGG GCGAAGGCAGGAAACC GGAAAACCACCGAAAGG GGAAAACCAGCGAAAGC GGAAAACCAGGGAAACC > 24 Shape Test AAAAACGCCCCAAGCCGCAAAAGAAGCGGCAAGGGACGCACCGGGAAAAACCCGGAGCGCAAAAAAAACUCACCAAGGGAGAAAAAAACUCCCAACGGAGCCACGCAGAGAAGCUGCGACCCCAUG AAAAAGAGGGGAAGCCCGAAAAAAAACGGGCAACGGACGCACGGGCAAAAAGCCCGAGGCCAAAAAAAAGGCCGGAAGCCGGAAAAAAAACCGGCAAGCAACCGAGCCCGGAAAACGGGCAAGUGAAG

AAAAAGGGGGCAAGGCGGAAAAAAACCGCCAAGCGAGCCAGGGGCUAGGUGCCUCAGACCGG

AGAAAGUGCGGAACCACGAAAAAAAACGUGGAAGGGACGGAGGCGGGAAAACCGCCAGGGGAG

AACCCCACCGCCCAACCGCUCAAAAAAAAAAAAAAAGUAUAAA

```
> 25 The Ministry
```

> 26 stickshift

```
..(((((((((((....)).))))))..
```

AACCCGCGCAAAAACGACGCGGGAA

AACCGGGGCGAAAAACGACCCCGGAA

AACGGGGCCAAAAAGGACCCCCGAA

AAGCCGCGCCAAAAAGGACGCGGCAA

AAGCGCCGGGAAAAACCACGGCGCAA

AAGCGGCCGCAAAAAGCAGGCCGCAA

AAGCGGGGCGAAAAACGACCCCGCAA

AAGGCGCCGCAAAAAGCAGGCGCCAA

AAGGGCCCCGAAAAACGAGGGCCCAA

AAGGGGCCCAAAAAGGAGCCCCCAA

> 27 U

> 28 Still Life (Sunflower In A Vase)

```
AACCGGGAAAAACCCGGAAGGGGCAAAAGCCCCAACGGCCAAAAAGGCCGAGCGGAAA
GGCGGCCGGGCCCAACCGGGAAAAACCCGGAACCGCCAAAAAGGCGGAACCGGCAAAAAGCCGG
AAGCGGGAAAAACCCGCAAGCCCCAAAAGGGGCAACGCCCAAAAAGGGCGACCGGAAA
AAAAAAAAAAAAAAAAGGGGAAAAAAAAAAAAACGGCCCCCAAAAGGCCGAGGGCCGGG
GGGGGCGCGCCCAACCGGGAAAAACCCGGAAGCGCCAAAAAGGCGCAAGCGGGAAAAACCCG
AAACGGCAAGGCGCAAAAAGCGCCCAAGCCCCAAAGGGGCAACGCCAAAAAGGCCGAACGCCCA
AAAAAAAAAAAAAAAAGCGGAAAAAAAAAAAAAGCGGGGCGAAAAGCCGCACGCCCCGGGG
CGGGGGCCGGGCAACCGCCAAAAAGGCGGAAGGCGCAAAAAGCGCCAACGCGGAAAAACCGCG
AACGCCCAAAAAGGGCGAAGCGCCAAAAGGCGCAACGCCGAAAAACGGCGAGCCGAAA
AAAGCCCAAGCCCGAAAAACGGGCAAGCCCCAAAGGGGCAACCCGGAAAAACCGGGAAGGGCCA
AAGGCCCAAGGCCGAAAAACGGCCAACCGGGAAAAAACCCGGACGCCGGCGCCCCCGCGGGGCC
AAAAAAAAAAAAAAAAACCCCAAAAAAAAAAAAAAACGGCCGGGGAAAACCCCCAGGGCCCGCGG
GGCGCGCCGGCGAACGGGGAAAAACCCCGAACCGGGAAAAACCCGGAAGGCGCAAAAAGCGCC
AACGCCGAAAAACGGCGAACCGGCAAAAGCCGGAAGCGCCAAAAAGGCGCAGGGCAAA
GGCGGCCGGGCCAACGCGCAAAAAGCGCGAAAGGGCGAAAAACGCCCAAGCGGGAAAAACCCGC
AACGGGCAAAAAGCCCGAACGCGGAAAACCGCGAAAAAACGGCGAGGGCAAA
{\tt CGGGCCGGGGGCGAACCGCGAAAAACGCGGGAACGGGGAAAAACCCCGAAGCGGGAAAAACCCGC}
```

```
AAAGCGCAAGCGGGAAAAACCCGCAACCGGGAACCCGGAACGCCAAAAAGCGCGAAGGCCGA
GGGCGGGCCCCAACCGCGAAAAACGCGGAACCCGGAAAAACCGGGAACGGCCAAAAAGGCCG
AACGCGGAAAACCGCGAAGCCCGAAAACGGGCAACGCGCAAAAAGCGCGAGCGCAAA
AAAAAAAAAAAAAAAACCGCAAAAAAAAAAAAAGCCGGCCGCAAAAGCGGGACCGGGGCCCC
GCCGCGGGGGGGAACGCCGAAAAACGCCGAAGGGGGAAAAACCCCCAACGCGGAAAAACCGC
GAAGCCGCAAAAAGCGGCAACCCGGAAAACCGGGAACGGGAAAAACCCCGACCGCAAA
AAAGGCCAACCGCCAAAAAGGCGGAACGCCGAAACGGCGAAGGGCGAAAAACGCCCAAGCCCGA
GGCCGCCGGGCGAACGCCCAAAAAGGGCGAACCCCCAAAAAGGGGGAACCGCGAAAAACGCGG
AACCCGCAAAAAGCGGGAACCGGCAAAAGCCGGAACCCGGAAAAACCGGGAGGCCAAA
> 29 Quasispecies 2-2 Loop Challenge
AAAAACCGCGCGCGAGGCCUAAAGGCCGGGCGCAAGGGAACAUAGGGCCCUAGGGCGGGAGG
AAAAACGCCGUCACUUGGCAAGGGCCACAUGAUACCUGAACCGUGGGCAGGAGCCGAAGAAGGC
AAAAAGACCGCGCAACGCGAAAACGCGAAGCGCACAGAAUCGAAGUGUCUGACUCCAACGAUCC
AAAAAGCGCUACCGCGACGCAUACGUCUGGGUAAGUGGAACGAAGGGCCACGCGCCAGGAACGC
AAAAAGGGCCGGGAAGGCCAAGAGCCGGGGACAAGAAACGGGUCCAGGGGAAGAAGC
AAAAAGUCCCGGCAACCCAUUAAUGGGAAGCCGAGGCGAACAAAGGACGCCACGCCAACAAGGG
```

AACCGCCAAAAAGGCGGAAGGCCCAAAAGGCCCCAAAAAGGGCCCACGGCAAA

```
> 30 Corner bulge training
```

ACGCCGCGCCAAAGCGGCAAAAGCGGCGA

> 31 Spiral

AAAAACGGGAGGGGGGGGCCCCCCCCCCCGAAAAA

> 32 InfoRNA bulge test

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCCGAAAAAGCCCAAAAGGCGAAAGGCGAAGCGG

```
> 33 Worm 1
```

AAAAAAAGGGGAGAAGAGGACGAAAGACCACCGUGUGUGCGC

AAAAAAAGGUGAGUGCAGAGUCCCUUAUGCGAGUCCGGAGUGAGC

AAAGAAACGCGUGCGCGGAGCGUCAUUAGUCGGUCGGGAAGGGG

AAAGUUAGUCGGGAGAAAGGGUGAGUAGUGGCGCUAUGUGUGGUC

AUAUUAAGGUGAGGUGGGGCACGAUACCAUGGCCGCUCGUGAGC

CGUAGAAGUCGUGCGUAGCGGGUCGCAAGUCCAGCCAGGGGGGUC

CUAUUAAGUCGCGCGCGUACAUCGUUAGCUGAACGGAGGGGGUC

UAGAGAAGUCGCGGCGAUGGUGGGAUUCGACGGUGGGCGGGUC

UUGACUACGUGUGGGGGGUAGCGAGAGAUGGCAACGUGCGGGGAG

> 34 just down to 1 bulge

 $\dots((((.((((.((((...))))).(((...))).))...((((.(((...))).(((...))).)))).\dots$

```
> 35 Iron Cross
```

GGAGGCAAACCCAGCCAUACGGCAGCCAAAGGCAGGGAUAGCGACGGAAACCGAGGGAA ACCCAGCCAAACCGAGGGAUGCCCAGCCGUAAGGCACGGAAAGCCAGAGGAAACUCACGCAAAG CGAGGCAAAGGGAGACGAAAGUCACGGAAACCGACCCAAAGGCAGCGAAACGCAGGGAA ${\tt ACCCAGCGAAAGCCACCCAAAGGGACCGAAAACGGAGGCAAACCCAGGCAGAAGCCACCGAAAC}$ GGAGGGAAAGGGACCCAAAAGCGACCGAAACGCACCCAGAGGGAGGGAA ACCGACGCAAAGCCAGGGAAACCCACCCAAAUGGGAGGCAAAGACACCGUAGACGGAGCGAAAC GGAGGCAAAGCGACGGAAAACCGAGGGAAACCCACGCAAAGGCACGCAAAGCGACCCAA CCACCCAUAGCCACCCUAAAGGGACCGAAACGGAGGCAAAGCGACGGAAACCGAGGGCC ${\tt CCCGACGCAAACCCAGCCAAAGGCACGGAAAACCGAGGGAAAGGGAGCCAAAAGGCACGGAAAC}$ ${\tt CGACCCAAACGGAGCCCAAGGGCAGGCAAAGCCACCGAAAGCGACCGAAACGGACGGCC}$ ${\tt CCGCACGCAAACCCACGCAAAGCGACCGGAAACGGAGGGAAAGGCAAAAGCCACCGAAAC}$ GGAGCCAAAGGGGGCCAAGAGGCAGACAUAGUCACCCAAAGCGAGCCAAAGGCAGCGCC CGCCAGGGAAAGGGACCGAGACGGAGUCAAAAGACACCCAAAGCCACCCAGAGGGGAGCCAAAG GCAGGCAUAGCGACGAAAACGGACGGAAACCCAAACCCAGCGAUACGCAGGCCC $\operatorname{CGCGAGGCAAAGGGACGGAAACCGAGCGUAAACGCACCCAAAGGCACCGAAAACGGAGCGAAAC$

> 36 loops and stems

...

> 37 Water Strider

> 38 The Turtle(s) Move(s)

AACCCAAAAAAAAGGGGAAAGCGGCAAAAAGCCGCAAAGCCGAAAAACGGCCAAGGGGCCAAAAAAAACCAAAAGGAAAAAGCCCCGGGAAAAAAAAACCCGGGGCCAAAAGCGGAAAAACCGCAAAAA AACGCAAAAAAAAGCGAAAGGCCGAAAAAACGGCCAAAGGGCAAAAGCCCAACGGGCCAAAAAAAACCGUGGGGAAAACCCCGCCGCAAAAAAAAGCGGCGGGGAAAAGGAUACUAGGUCCAAAAA CACAAAAGUGAAACGCCGAAAAAAACGGCGAAAACGCAAAAGCAAAAACCGAAAACGGA AAAGCAAAAGCAAAAACCCGGCCGCAAAAAAAAGCGGCCGGGAAAAAGGGCAAAAAGCCCAAAAA CGGAAAACCGAAAGGCGGAAAAAACCGCCAAAACCGAAAAGCAAAAGCAAAAACCGAAAACGGA AACGCAAAAAAAGCGAAAGGCGGAAAAAACCGCCAAACGGGAAAAACCCGAAGGCCCGAAAAA AAAGCAAAAGCAAAAGCGCGCGCGAAAAAAAAAACGCGCGCGCAAAAACCCCAAAAAGGGGAAAAA CGGAAAACCGAAACGCGCAAAAAAAGCGCGAAAAGGGAAAAGGAAAACCAAAAACGGAAAACCGA AACGCAAAAAAAGCGAAACGCGCAAAAAAGCGCGAAACCCCAAAAAGGGGAAGCGGGCAAAAA AAAGCAAAAGCAAAAGCGCGCCCAAAAAAAAAGGGCGCCCCAAAAACGCCAAAAAGGCGAAAAA CGCAAAAGCGAAAGGGGGAAAAAAACCCCCAAAACCCAAAACCAAAAGGAAAAAGCCAAAAGGCA AACGCAAAAAAAAGCGAAAGGCCCAAAAAAGGGCCCAAACCGGAAAAACCGGAAGGGCCCAAAAA ${\tt CCGAAAACGGAAACCGCCAAAAAAAGGCGGAAAAGCCAAAAGGAAAACCAAAAAGCGAAAACGCA}$ GCGAAAACGCAAACCCGGAAAAAACCGGGAAAACGGAAAAGCAAAAACGGAAAACCGA AACCCAAAAAAAGGGAAACCGCGAAAAAACGCGGAAACGGGAAAAACCCGAACCGGGGAAAAA GAACCAAAAGGAAAAAGGCCCCAGCAUAAAAAAGCUGGGGCCAAAAAGGCCAAAAAGGCCAAAAA GCCAAAAGGCAAACCGGCAAAAAAAGCCGGAAAAGGCAAACCAAAAGGAAAAAGCGAAAACGCA AAACCCCCGAAAAAAACGGGGGAAAACGCAAAAGCGAUAUAGCCCCCAAAGGACAAAAGAAGUC AACCCAAAAAAAAGGGAAACCCCGAAAAAACGGGGAAAACCCGAAAAACGGGAAGGGGGCAAAAA

> 39 Adenine

```
)))))))))))))))))))))))))))))))))))
GCCAAAGGCCCACGCCCCAAAACCCCCCAAAAGGCCCCAAAACGGGG
GGAAAGCGCGAGCCCGGAAAACGCCGCAAAAGGGGGGAAAACCGGG
GGCGCCACCCGAAAGGCCCCCAAAGGGGGCCCGGGGACGCCGACGCCCGCGCGCAAACCGG
CGCAAAGGCCGACGCCCAAAAGGGGCCAAAACCCCCGAAAACCCGG
GGGGCACGCGAAACCGGGCGAAACGCCCGGCCGACGCCCGACCGGGCCCGAAAGGCGG
GCAAACCCGGACGCCCAAAAGCGGCGAAAACCCGGGAAAACGGCG
GGGCCAGCGGAAACGGCCCGAAACGGGCCGCCCCGCACCCGGGACCGCCCCGCGCAAAGCCGC
GGAAAGGCGGACGCGCAAAACGGCGAAAACCGGCGAAAACGGCG
CCGAAAGCCGGAGCCGGGAAAAGGCCCGAAAACGGCGGAAAAGGCCG
{\tt CCGGCACGCGCAAAGCGCCCCAAAGGGGCGCGCGGGGGCACGCGGGGGCCCAAAGGGCC}
{\tt CCAAAGCGCGACGGGCAAAAGGCGCCAAAAGGGGGC}
GCCAAACGCGCACCCGGCAAAACCGGCGAAAAGCCCCGAAAACCGGC
CCAAAGCCGGACGCCGGAAAACCGCCCAAAAGGCCGCAAAACCGCC
GGGAAACGGGGACCCCCAAAAGGGCCCAAAACCGCCGAAAACCCCC
> 40 Tripod5
..((((((((((....))))((((....))))))))...
AACCGCGCGCAAAAAGCGCGGGGAAAAACCCCGCGGAA
AACCGGGCCCAAAAAGGGCGCGCAAAAAGCGCCCGGAA
```

```
> 41 Shortie 6
((...)).((...)).((...)).((...))
CCAAAAGGACCAAAAGGAGCAAAAGCAGGGAAACC
CCAAAAGGACCAAAAGGAGGAAAACCAGCGAAAGC
CCAAAAGGAGGAAAACCAGGAGAACCAGCGAAAGC
GCAAAGGCAGGAAAACCACCAAAAAGGAGCGAAAGC
GCGUAAGCAGCGUAGCAGGAAAACCAGGGGAACC
GGAAAACCACCAAUAGGACCAUAAGGAGCGAAAGC
GGAAAACCAGCAAAAGCAGCAUAAGCAGGGAAACC
GGAAAACCAGCGAAAGCACCAAAAGGACCGAAAGG
GGAAAACCAGGAAAACCAGCGAAAGCAGCGAAAGC
GGGGCACCAGGAAAACCAGCAAGAGCAGCGCGAGC
> 42 Runner
CCGAAACGGAAAGCGAGACCGAAAGGCAAAAGCCACGGAGGGGAAAAA
AAAAACCCCAGGGCAAAAAGGCGAAACGCCAGCCCAAACCCAACGGCCAAAGGCAAACCGGGG
CGCAAAGCGAAACCCAGGGAAACCGAAACGGAAAACCGACGGAGGGGAAAAA
AAAAACCCGAGCGCAAAAACCCCAAAGGGGAGCGCAAAGCCAACGCGGGAAACCCAAAGCGGCC\\
GCGAAACGCAAAGCCAGGCAAAGGGAAAGCGAAAACGCACCCACCCGAAAAA
AAAAACGGGAGCGGAAAAGCGCAAAGCGCACCGCAAAGCCCAACGCCCAAAGGGAAAGCGGGC\\
GCGAAACGCAAAGCCAGGCAAACGCAAAACGCAGGGGGCGACCCGAAAAA
AAAAAGGCCACCGCAAAAGGCCAAAGGGCAGCGGAAAGCCAAGCCGCGAAACGCAAAGGCCCC\\
CGCAAAGCGAAAGGGAGCCAAAGGCAAAACCGAAAACGGAGCCAGGCCAAAAA
AAAAAGGCCAGGCGAAAAAGGCCAAAGGCCACGCCAAAGGGAAGCGCCGAAACGGAAACGCCCG
GGCAAAGCCAAACGGACCCAAAGGGAAAGCCAAAAGGCACCCAGGCCAAAAA
AAAAAGGCGACGGGAAAAGGGGAAACCCCACCGGAAACCCAACCCGCCAAAGGCAAAGGGGCC
GGGAAACCCAAAGGGAGCGAAACGGAAAGGGAAAACCCACCGAGCCCAAAAA
> 43 Recoil
```

AAAAAAAAAAAAAAAAAA

AAAAAAAAAAAAAAAAAA

AAAAAAAAAAAAAAAAAA

AAAAAAAAAAAAAAAAAA

> 46 Triple Y

AGCCCGGCGCGCAAAAAAAAAAAAAAAAAAAAAA

> 47 Misfolded Aptamer

(((((.....((((((...))).((...)).....)))))

> 48 Flower power

 ${\tt AAAAAGCGCGCGGAAACCGCACCGGGCCCAAAGGGCAAGCCGAAACGGCAAGGCCAAAGGCCCCC}$

> 49 Kudzu

> 50 "1,2,3and4bulges"

 $\dots((((.(((((...))...))).(((...))).)).))\dots((((.((((...))...)).(((...))).)).))\dots$

AAAAAGGGGAGGCGGGGACCAAUAGCCGGCCAAAAGGCACCACCAAGAAGCGCAGGCCGUAA GGAGACCACCCAAAAGGGAGCAAGCAAUAGGAAAAGUAAGAAAGG

CAUAACCCCACGCCAAAAAGGAAAACCGAGGCAAAUGCCAGGAGGAAAAAGCGCAGGACGAUAG

UAUACCACCGAUAACGGAGCAAGCAUAUAAUACAAAAAUAGAGA

> 51 medallion

GCGCGCACGGGGAAAACCCCCGACCGAAAACGGACGCAAAAGCGAGCCCGCAAAAGCGGCCACGGAAAACCGGACGCAAAAGCGGCCACGAAAACGCACCGAAAACGCACCGAAAAACGCACCGCAAAAGCCACGGGCAAAAAGCCACGGGCCAAAAAGCCACCGAAAAGCCACCGGAAAAACCCACGAAAAAGCCACCGGAAAAACCCACGAAAAACGCACCCGGAAAAACCCACGGAAAAACCCACGGAAAAACCCACGAGCGCGAAAAACCCACGAAAAACCGAGCGCGGAAAAACCCACGAAAAACCGAGCGCGG

AAAACCGCGCAGCGCGC

> 52 [RNA] Repetitious Sequences 8/10

((.....((.....)).....(((.....((.....)).....((.....))....))....))....

GCGAAAAACCGAUUAAGGAAAAAAGCCAAAAAAAGGGGGGAACCAAAAAAACCGGGAAAGGAAAUA AGGCAAAAAAGGCAAAAA

GCGAAAAGGGGAAUACCAAAAAGCCAAAUUACCGUUGUAGGAAAAAAGGGAAGAACCAAAAA AGGCAAAAAAGGCAAAAA

GCGAAUAACCAAAAAAGGAAAAACCCAAAGAACCGAAAAAAGGAAAUAAGCGCAUAAGCAGAAA AGGGAAAAAAGGCAAAAU

 ${\tt GCGGAAAAGGAGCCAGAAGACCCGAAAUAGCAUAGGAGCAAAAGAACCAAAAAAAGGAAGU}\\ {\tt AAGGGAGGGAGGCAGUGA}$

GCGGAAGACCAAUAAAGGAAAAUAGCCAUAAGAGCAAAAAAGCAAAAUACCGAAGAAGAAUAA

AGGCAACGAGGCAUGAU

GCGUGAAACCAAAGAAGAAAAAAGGGAAAAAGGGAAAAAGGCGUAAGAGGAGUAAACCAAGA AACCCAAUAUGGCAUUAG

AACCCAAUAUGGCAUUAG
> 53 Documenting repetitious behavior
$\dots \dots ((\dots ((\dots \dots ((\dots ((\dots \dots ((\dots \dots ((\dots \dots ((\dots \dots ((\dots (\dots $
((((((())))))))))
))))))))))
AAAAAAAGCAAAAAAAAGCAAAAAAAAAAGGAAAAAAAA
AAAAAAAAACGAAAAAAAAAGCAAAAAAAAAAGGAAAAAA
GCAAAAAAAAAGGAAAAAAAAGGAAAAAAAAAGGAAAAAA
AAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAACGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAGCAAAAAA
AAAAAAAGCAAAAAAAAAGGAAAAAAGAAACCAAAAAAAA
AAAAAAAAGGAAAAAAAGCAAAAAAAACCAAAAAAAAGGAAAAAA
GGAAAAAAAAGGAAAAAAAGGAAAAAAAAAAAAAAAAA
AACCAAAAAAAGGGAAAAAAAAAAGCAAAAAAAAAAGGAAAAAA
AAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAACCAAAAAAAAAGCAAAAAAAAACGAAAAAAAAGCAGAAAAAA
AAAAAAAGCAAAAAA
AAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAACCAAAAAAAAAGCAAAAAAAAAAGGAAAAAA
CCAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAA
AAGGAAAAAAAAACCAAAAAAAAAAGGAAAAAAAAGGAAAAAA
AAAACCAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAA
AAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAACCAAAAAA
AAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAA
${f CGAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAA$
AAGGAAAAAAAAACCAAAAAAAAAAAAAAAAAAAAAAA
AAAACCAAAAAAAAAACGAAAAAAAAAAGCAAAAAAAAA
AAAAAACCAAAAAAAACCAAAAAAAAAGGAAAAAAAGCAAAAAA
AAAAAAACCAAAAAA
AAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGCAAAAAAAACCAAAAAAAAAAGCAAAAAAA
GGAAAAAAAAGCAAAAAAAAAGGAAAAAAAAAGCAAAAAA
AAGCAAAAAAAAAGCAAAAAAAAAAAAAAAAAAAAAAA
AAAAGCAAAAAAAAACCAAAAAAAAAAGCAAAAAAAAACGAAAAAA
AAAAAAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAACCAAAAAA
A A A A A A A GGA A A A A A A A A A GCA A A A

> 54 7 multiloop

GCGCGCCCAAAAGGGGCGGGGCAAAAGCCCCGCGCCAAAAGGCGCCCGGCAAAAGCCGGGGGC

GAAAACGCCCGCGGGAAAACCCGCGCGC

> 55 Kyurem 7

> 56 JF1

```
> 58 Multiloop...
```

CCGGACGCGAGGGAAAACCCAGCCAAAAGGCACCGAAAACGGAGGGAAAACCCACGGAAAACCG ACCCAAAAGGGACGCGACGCGCAAAAAAGCGCGGGCAAAAGCCCCGG

 $\begin{array}{l} GCGCACGCGAGAGAAACCCAGGGAAAAACCCACGCAAAAGCGACGCAAAAGCGACGGAAAAACCG\\ AGCCAAAAGGCACGCGACCGGGAAAAAACCCGGCCCAAAAGGGGCGC \end{array}$

> 59 hard Y

AAAAACCCCCGCGUAGCGUCGUAAGACGCUGUCCGGACCCAGCACUAUCGUGCUGGGUCGGGGAAAAA

AAAAACCCCCGCGUCAGGCUUAUAAGCCUGGUCCGGGCGCCGGCCAAAAGGCCGGCGGGGAAAAA

AAAAAGCCUCGCGUAGUCGCUUUUGCGACUGUCCGAUAAAGAUUACCCCUAAUUUUUAUAGGCA AAAA

AAAAAGGCCCGCGUACCGGCUCGAGCUGGUGUCCGGGGGGCUGCUGGUCAGCGGCCAAAAA

AAAAAGGCCGGCGUUCUGCCGAAAGGCGGGGUCCCUAAAUGGGCGAAAACGCCCAUUUAGGCCA AAAA

CCCCGGUCCGCGUAGUAUUCAGCGAUACUGUCCGGCCGAUCCCCAAAAGGGGGUCGGCGACCC CCCC

 ${\tt CCCCUCGAGGCGUGAAGUGAGCGCAUUUCGUCCCGCAUCGCGGCGUCAGUUGCGAUGCUCGACCCCCC}$

> 60 Mat - Elements & Sections

UAAAAGCGGGAUAGGACGCAGGAAGCCGGGUGCGGUCCGGCCGAAGGGUGGUGUCGCCAUGGG CUCAUACGUGUGACGAUUGCCGCAAAAAAAGAUGGGAAGAAGA

> 61 Chicken feet

AAGAA

 $AAAAAGGACGAGCAAAGCACGGAAACGCAGGAGCAGCAAAGCAGGAAAACCGAAGCCC\\ AUAAA$

 $AAAAAGGACGAGCAGCAGCAAUAGGAAACGCCAGGAGCAGGAAACCAGCGGAAGCAAAGCCC\\ AUAAA$

AAAAAGGAGCAGGAUACCAGCGAGGAUAGCCCACCACGAGCAAAAGCACCAAAAGGAAACGGGGAAAAA

 $AAAAAGGAGGACCAAAGGAAAAGCAAAACCCCAGGAGCAGGAACCCAGCGAAAGCAUAGCCC\\ AAAAA$

> 62 Bug 18

> 63 Fractal star x5

AAAAGGCGAAGCCGAAAACGGCAACCGGAAAACCGGAAAACGCGAACCCCCGGCAAAA ACCCCGGCCAACGCAAAAGCCGAAGCGGAAAACCGCAAGGGGAAAACCCCAACGGGAAAACCC GAAGGCCGGGGAAAAA

```
> 64 Crop circle 2
((...((....((.....((.....((......)).....))....))....))....))....)
> 65 Branching Loop
.((((((......)((((....))))...)))......
ACCCUGGAAUAUUACGGCCGACGGGCCAUGGGGAAACUGU
```

ACCCUGGAAUAUUACGGCCGACGGCCAUGGGGAAACUGU
ACGCUGGCAAUAAACGCGGAAACCCGCAUGGCGAAAAAAA
ACGGUGGAACAAGACGCGUACUUACGCAUGCCGGUUAGAG
AGCCUGGCAGAAGACGCGCGAGAGCGCAUGGGCACAAAGA
AGCUUGGAGAAUAACGCCAUAACUGGCAUGAGCAAUUAUG
CCCGUGGAAUUUAACGGCGGUCACGCCAUGCGGAUACUUA
CGGCUGGAAUAAUACGGCGAUCGCCCAUGGCCCCCCC
CGGCUGGAAUAAAACGCACACUCGUGCAUGGCCUAAAAAC
CGGCUGGAAUUAAACGACCACUGGGUCAUGGCCCCCCCC

> 66 Bug 38

.((.((.((.((.((.(...).)).))..))...)).

ACCAGCACAGAUCGCACAGGGAAUGAGGCCACAGGG
AGCAUCAUCGAGCGCACGGGGCAGAAGGAAUUAGCA
AGCAUCAUCGGGCGCAGAGGGCAGAAGGAAUAAGCA
GGCACCACCGAGCGCUAUGGGCAGGAAGGAAAAAGCG
GGCACCACGAGACGCUAAGGGUACGGAGGAAUAGCG
GGCACCAGGAAGCGCAGGGGCACCGAGGAUAAGCG
GGCACCACGGCGCUCAGGGCACGAACGAAUAGCG
GGCAUCACGGGGCGCAGGGAACGAAUAGCG
GGCAUCACGGGGCGCAAGGGGCACGAGGAAUAGCG
GGCAUCACGGGCGCAAAGGGCACGAGGAAAUAGCG
UGCUCCAGCAAGAGGAUACGUCGGCACGGUUACGCG

> 67 Simple Single Bond

.....(.....(((((....)))).....).....

> 68 Taraxacum officinale

> 69 Headless Bug on Windshield

> 70 Pokeball

```
> 71 Variation of a crop circle
```

> 72 Loop next to a Multiloop

AACGCGCGCUGAUAGGACGGAGGACGAUGGUCCUCGAACUGACGAAUGUCGGUUGGGGAAUAA GGCGCGCGAA

AACGUGCGCUGUACAAGCGGGCGGGGCCACCUGCCAGCGGGCCGUUAGGCCCGCGGGGACAAA GGCGCGCGAA

CCAUCCAGCUGGAGAGCGCUCGCCGUAGGGCGAGGUAGCGCCGGAGGGCGCUAGGGAGAAUA GGCUGGAUCC

 ${\tt CCAUCUAGCUGAACGAACGUCCGCCAAUAGGCGGAACGCUGUGCUUACAUAGCGGGGGGAGAAGGCUGGAUCC}$

CCCCGUCGAUGUAAAAACGGUGAGCGGAAGCUUGCAGCCAGGCGGAAGCCUGGCGGGACAUGA GUCGAUGGCC

CCCUACGUGUGAAUAUAGGGCCGGCAAGAGCUGGCGCGGGCCCUAAAGGGCCCGACGGCAACAG CGCGUGGCC

 ${\tt CCGAGCCAAUGGAAAAGGGGCUGGACAAAAGUCCAGGAAAACCCAAAUGGGUUUUACGAUUAUAGUUGGUUCCC}$

 ${\tt CCUAUUCUAUGAAAAAGGGGUAGGAAAACUCCUACAUUAGGGAAGACUCCCUGAACGGAAAUAGUAGAAUGCC}$

> 73 Snowflake 4

ACCGAAACGGUGGCCCCAAAAGGGGGGGAACACGGGGGUAACCGCGGACCGCGAAACCGCUAAGCCAUAGGCUGGUCCCCAAAAGGCCGUGAAGCGCCGGGUAACCACGCCGCGCAAAGCGCAACCCGAAACGGGGGGCGCAAAGCGCAAGCCCAGGGGAACCGAAACCGCGCGCGCAAAGCGCAGGCAAACCGCAGGGGGAACCGUAGCCGCCAAAGGCGUUGACGAAACGUCGCUGCCCAAAAGGCCCUGAACAGGGGGGGAACCGUAGCCGCCAAAGGCGUUGGCAAACUGCCGCUGCCCAUAAGGCCCUGAACCGGGGGGAACCGGCCGCCAAAGGCGUUGGCAAACUGCCGCUGCCCAUAAGGCCCUGAACCCCCGGGGAACCGGCCCGCCAAAGGCCUUGCCAUAACGCCCUGAACCCCCGGGGAACCGGCCCGCCAAAGGCC

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{\tt CGCCAAAGGCGACCCCCAAAAGGCGGCCAAGCAGCGGGAGACCGGGCCGGGAUGUUCCCAUGC}
GCCAAGCGCGCCCCAAAAGGGCUGCAACGACGGGGUGACCGCGGCGGAAGAAUUCCAAGCAC
AAAGUGCGCCCCAAAAGGCGUCGAAGCACCGGGUAACCCCGGGCGCAAAGCGCAACCCGAA
UGGGCGGACCAAAAGGGGUGUAACCACCGGGGAACCACCGCGGGCAAAGCCCAUCCAGAAACUG
GGCGGUCCAAAUGGGGUGGAAGGCCGGGGCAACCGGGGUCCCGAAACGGG
GCGAAACGCCGCGCCCCAAUAGGCCGUCAAUCCGGGGGGGACCGGCGGGGGAAACCCCAAGGC
GAAACGCCGCGCCCCGAAAGGCCGGAAAAUCGCGGGGGACCAGAGCGGCCAAUGCCCAACCGCC
AAGCGGGCUCUCCAAUAGGGCGAUAAAUCGGGGGGGGACCGGCGGGGAGAAACUCCAAGGCGAA
GCCGCGCCCAAAAGGCCGUGAAGCUAUCCAAAAGGGGUCAAGCCCGUGGCU
{\tt CGGCAAAGCCGGCCCGGGAGACCACGCCAAAUCGCCCGAAAGGGGGCCGAGCAAAGCUCAGGG}
GAAUGUCCCGCCCGGAAAACCGCGAUAACCCCUGGGAAACCACUCCGUGCGAAGCACAUGAGA
AAUUCUCGGAGUCCGAAGGGAGGGGAGCCCCUGGGAUACCGGCCCGCGAAAGUCGCAAAUGCAU\\
GGCAUGGGCCCGAAAGGAGGGGAAAACGCCCGAAAGGGGGCCGAGCAAAGCUCAGGGGAAUG
UCCCGGCCCGGAAAACCGCGUUAAGCCCUGGGAAACCGCCCCCCAAAGGGGAAAGCCAAAGG
GACGAAACGUCGCGACCCAAAAGGCCGCCAAAUCCCGGGAAACCGCCGCCCCGAAACGGGAAGG
ACAAAGUCCGCGGCCCAAAAGGGGGAUAAGCCCCGGGAAACCGCCGCCCCGAAACGGGAAGGAC
AGGGCGGGCCCAGAAGGGGGGCAACACCCGGGUAACCGCCGCGGCCUAAGGCCAACGGGAAAC
{\tt CCGGCGGCCCAAAAGGGGGGUAAGGGGGGGUAACCGGCCGAGCAAAGCUCAACGAGAAACUC}
GGGGCCCGAAAGGCGUCAAGGCGGGGGCAACCGUCGCAGGCAAAGCCU
GCCGAAACGCCCCCCAAAAGGUCCGGAAGCGGGGGAUACCGGGCCACCGAAACGGUAUGG
CGAAACGCCGGCCCCAUAAGGCCCGCAAGCGAGGGGAGACCGCGCCACCCAAAGGGUAUGGGC
AAUGCCCGGCGCCCAUAAGGCUCGCAACCGACGGGAAACCGCCCCCCCAAAGGGUAAGGGCAA
UCCGGGCCCAUAAGGCUCCGAACCGAGGGGAAACCGCGCCACCCAAAGGGUAUGGAGAUGCUC
CGGCGCCCAUAAGGCUCGGAACCGGAGGGAUACCGGGGCCCCGAAACGGG
\operatorname{GGCAACCUGCCGGCGACGGAAACGGGGCAAAAUCGCGGAAAACCGAAGCGGGGAAACCCCAAGG
{\tt CCAAAGGCCGCUUCCCGAAAGGGCGAUAACGCGCGGAAAACCGGAGCGGGGAAACCCCAAGGCC}
{\tt ACGGGCCGCUCCCGAAAGGGCGCGAAGGCGCGGAAUACCGGAGCGGGGAAACCCCGAGGCCAA}
{f AGGCCGCUCCCGAAAGGGCGCCAAUACGCGGAAUACCGGACCGGGGAAACCCCAAGGCAACGU}
GCUGGUCCCGAAAGGGCGUAAAGCCGCGGAAUACCGGAGGGGAAACCCCGAGGCCAAAGGC
CGCUCCCGAAAGGGCGGCGAUGCCCGCAAUAGCUCGCCGUCACGCUGAC
GAACAUCGUGCCCGGAAAACCUAGGUAAGGGCACCGAAGGGGCAGCGACCAGAGGUCAACCGC
AAAGCGGGCUGCGGAAAACCUGCCCAACGGCACCGAAGGGGCAGCGAGCAGAGCUCAACCGCAA
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UCCUGCCGCGGAAAACCUAGCCAACGCCCGGAAAACCGCCGCCGCAAGCUGCG

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GACCAAAACGAAGGAAGCAACGAAGGAACAAUAAGCAAGGAACCAACGAACCAAGGAAAAGGAA
{\tt CGGAGGAAAGGAGGAGCAUAAGAGCAACCAACUAACCAACGAGCCCCAAGGAACGGAGGAACC}
AAGCUGGACCAACGGAGCGACCGGGAAGGAAGCAAGGAAGCCCAAGGAAGGAAGGAACCC\\
GAAGCAACCAACCGAACGAAGCAACGCAAGGAGCCGUAACCAACGCAAGCCCAACCCGGAC
GGAGGAAAAGCAAGGAAAAGCAAAGAAGGGACCGAAACCAGGCAAGGAAAACGACCAAC
GAAGCAAUAGGAAGGAAGGAACCAGACCAGCGACCAAGGAAGCAAGGAAUCAAGGA
GAACCAACCAACGAAGCAAAAGAGCAACGAAGGAAGGGACGAAGCCCAAGGAACGGAGCAGGGA
GGCGGAGCCAACGAAGGAGGCAACCCCGACCAAGAAACCAAGCCCGAGGAAGUGAGGAAGGGG
AACCAACCAACCGCAACGAGGGAAGCCAGGCAAGGCGAACCAACGCGAGCCCAAGCCCGAC\\
GGAGGAAAAGCAAGGAGGAAGCAAUACGACCAAGCAAAAGGGACCAAGGUAAAGAAGGAA
AAGGAAAACGAACGAACGAACCGACCGGCAGAAGCAACGGAGCGGCCAAGCAAGGAAAAGCAA
GGGGCGCAAGGGAGGAACGGCGAACGCCAAGGAACCAAGCCCAACCAACGAACCAAGCC
{\sf CAAGGAAGGAAGCGAACGAACCAGCCCAAGGAACGCAAGGCAACCCCAAGCCCGAC}
GGAGGAAAAGGAAGCAAAAGGAAGGAAAAGAGGCAAGCAAAACGAUCGGAGCAAAACAACCGA
GAGGAAAACCAAGGAAGCAACCGACGAGGAGUAUCCGAGCAAAGAAUGGGGCAGCCAUAUGGG
{\tt ACGAAGGAGCCAAGCAAAAAAGCAAGGAGCCGACUGGCGGACCGGAAGCAACAGGCUAG}
GCAAGGCCGACGAAGGAGGCAACCAAGGCAACCAAGCAAGCAAGCGGAACCAAGGAAGCAAGC
GGAGGAAUAGGAACCAAUAGCAAGCAGAUGGACGAGGUAUAAGGAGGGGACGAAAAGGAGAAA
GAAGCAAGUGACCCCAAGGGAUCAACCGAACCACCACGACGCGAGCGGGGCCCCGAC
AAGGAAACCAAACGACAAACGAAGGAAGCGAGCCAAGGAACCAACCAGGGAAUAGCGG
GAGGGCAACCGACGAUGAAGUAAGGCCAAGGAAGGAACCGACGCGAGGAAGGGAAGCAGCC
{\sf CAACCAAGGAACGCGAGGGAAGCAAGGCGACCGACCAACCGGACCCAGGCCGAC}
```

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>75 Misfolded Aptamer 6
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.....(((.....(((...(((.....)))....))))....))).....))

> 76 Snowflake 3

CCCCCAAAAGGAGGCCCCAAAUGGCAAGGCCACGACAAACCGUAAGGUGGCAGCGCGAGCGGAGCGGAUACCCAGGAUACUAGCCGCGAAACGCAAGUCGAGGCAACCGGAAACGGGGCAGCGCGAGCGGAUACCCAGGAUACUAGCCGAGGAAACUCAAGCCCAGGGAACCGGAAAAGCGGACAGCGCGAGCGCGAGCGGGAAACCCGGGAUACCAGUCGAGGAAACUCAACCCCAGGACAACCGAAUACGGGGCAGCGCAGCGCGAGAUGCCCGGGAAACCAGCCGGCAAAAGCCAAGUCCACCGGAACCGAGAACGGGGCAGCGCGGAGCGCGGAUACCCAGGAUACCAGGAAAAGUCAACCGGAGACCGAGAAAGUCGCCAGGAAAAGUCAACCGGAGACCGAAAAGUCCACCGGAAAAGUCCACCGGAGAAAGUCCCAGGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGAAAAGUCCACCGGAGGCCAUGACGAAAAGUCCACCGGG

CCCCCGAAGGGAGCCACCGUAAGGUAAGUCCAGGGCAACGCAAAAGCGCGGAGGGAAACCGGCA
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CAAAGCCCCAAAAGGACCGGACAAAAGUCAAGCCGAGCCGAACCCAAAAGGGCGCAGCAAAAGC
GGUAAAACCCCAGAAGGAGCGGGCAAAUGCCAACGGCAGCCCAACCGAAAACGGCGCAGCAAAA
GCGGUAAAACCCCAAAAGGAGCGGGCAAAAGCCAAGGGCAGCCCAAACCGAUAGGUCGCAGCAA
AAGCGGUAAAACCCCCAAAAGGAGCGGGGAAAUCCCAAGGGCAGGACAACCGAAAAGCGGGCAG
GAAAACCGGG

CGCCCAAAAGGAGGGGCAAAAGCCAAGACCACGCCAACGGAAAACCGCCAGGAAAACCGCGA AACGCCCGACGGGAGGGCCAAAAGGCAAGGCGAGCGCAACACGAAUGUGGACAGGAAAACCG GCAAAGCCCCAAAAGGAGUCGCGAAAUCGCAAGCGCAACCCAACACAAACGUGGACAGGAAAAC

GCCGGGGGACCACGCACCGAAAGGUAAGGCACGGGAACGCAAAAGCGGCCAGGAAAACCGCCA AAGGCCCAAUGGGAGGCGUCGUAAGACAACCCGAGGGGAACCGAAAACGGGCCAGGAUAACCGC GAAACGCCCAAAAGGAGGCGCCCAAGGGCAACCCCAGCGGAACCGAAUACGGGCCAGGAUAACC GCGAAACGCCCAAUAGGAGGCGCCAGAAGGCAACCGCAGCGCAAGCGAAAACGCGCCAGGAUGA CCGCGAAACGCCCAAUAGGAGGCACCGAAAGGUAAGCGCAGCCCAAGGGAAAACCCGCCAGGAA AACCGCCAAUGGCCCAAAGGGAGGCGACGAAGGUCAAGGGCAGCCCAAGCGAAAACGCGCGACC AAAAGGGGC

GGCCCAAAAGGAGGCGCGAUAGCCAACCCGACACCAAGGGAAAACCCCCCAGGAAAACCGGCA
AAGCCCCAAAAGGAGGGCCCAAAAGGGAAGGUGAGCCCAACGCAAAAGCGGCCAGGGAAACCGC
CAAAGGCCCAAGAGGAGGCGCGAAAAGCCAAGGCAAGGGAAAACCCGCCAGGAAAACC
GCCAUAGGCCCAAGAGGAGGCGCAAAAAUGCAAGCGCACCAACGGAAAACCGGCCAGGGAAA
CCGCGAAACGCCCAAAAGGAGGCGCCACAAGGCAAGGUGAAGCCAACGCAUAAGCGGCCAGGGA
AACCGCCAAAAGGACGCCAAAAGGAGGCGCAAAGCCAAGGCUACGGAAAGCGCCAGC
GAAAGCGCC

 ${\tt GGAGACCGCGAAAGUACGCCGCGAGAGCGAAGCUCAGCGCAAGGAAUAUUCCGCCAGGGAGACCGCC}$

```
> 77 Hard Y and a bit more
```

AUAAGACUCCCUAGUUGUAUUUACAGUCAGGCGGCACCAAGCCCAUAAGGGCAACGAAGUUCAA UCUUCGAAGGAGCCGCGGGGUAAUUUUUUGAAAGUUUGUAC

> 78 Mat - Lot 2-2 B

> 79 Shapes and Energy

> 80 Spiral of 5's

GCCUUGUGAGGACCA

GUAAAUGCCGAAACCGCGAAAGCGCCAAAAGCGCGAAAGGGGCAAACGGCGAAGGCGCGAAACC

> 81 Campfire

AAAAGCGCACGGACCAAGCCCGACCGCGAAAAGCGGGGCCCCAAAGGGACCCGGGCGCCCCAG

CACGAGGGCGAAAACGACCCCGGCGCCCAGCACCACCGUAAGGGGGCGGCAGUGUGAAUACGU CCUAGCCAAGGAGCCGGGAGGCGGUCCCCCAGGCGCGGUGCCCGUUGGGGCCCGGCCCGG GAAGCCCAGGAGCCAGGGGCGC

> 82 Anemone

AAAGGCCCCGUGAGGGCCCAGCGCAGGUUGCGCUCGGGUCACCGAGCGCCGAAAACGGCCAGUCCGGUCACGGACUGGCCCACAGCGUCGCACCGCGAGGUGCCCCCCAAAAGGGGGGACCCG

 ${\it GAAAACCGGGGCCGUAAGCGGCCGACCCGAGAGGGUCCGGCCAGAAGGCCCGGCCGAGAGGGCCGGGCGGAAAACCGCCC}$

AAAGGCGCCAAAAGCCGCCGGACCAAUUGGUCCGGGCGAAAAACCGCCCGGGGGAAAAACCCCCCUGAGACAAUUCUCAGCGCCAAUAGCGCCCCCAAUAGGCGGGCACCCGAUGGUGCCAUAGCACCCUGCUAGGCAGACGAUUCUGCCGCGCGAAGACGCCGCGGGGGGAAAACCGCGGGGGGCAAAAUGCCCCGGCAGUCGAUACUGCC

```
> 83 Fractal 3
AAAAACACAAGCCAGCAAUAGCGGGGGACCAGGCAGGGAGCAAAAGCGGAAAACCACCCAGGCA
AAAAACAGCAGCACCGACGGGGAAAACCAGCCAGGCACCAAAAGGGGAAAACCAGCCAGCCA
GCAAGAGCGGAAAUCCAGGCAGCCAGCAAGAGCGGAAAUCCAGGCAGCUGAAAAA
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GCGGAAGCGGAAAACCAGCCAGCGAGCGGAAGCCCAAAAGGACGCAGGGGAAAAA
GGAAAACCGCAAGAGCACCGACCCACGAAAACGGCGUAAGCAGGGAGGCGAAAGG
GAGAAAUCGCAAAAGCAGGCACCCACGGAUACGGCAAAAGCAGGGACCCGAAAAA
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GCAAAAGCGGGAAACCAGCCAGCCACCGAUGGGGGGAUACCAGGCAGCGCAAAAA
{
m AAAAAGGACAGCCACCGUAAGGGGGAAAACCAGCCAGGGAGGAAAACCGCAAAAGCACCCACCCA}
\operatorname{CGAUGACGCGAAAGCAGGGACCCACGAAGACGGCGAAAGCAGGGAGUCCAAAAA
AAAAAGGGCAGCGACCGAAAGGAGGAAACUACGCAGCGACCGAAGGGGGAAAACCACGCACCCA\\
CGAAAACGGCCAAGGCAGGGACCCACGAAAAACGGCGAAGGCAGGGAGCCCAAAAA
```

> 84 Kyurem 5

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> 85 Snowflake Necklace ( or v2.0 )
```

 ${\tt CGCGGGCCGGGCCAUGGCCAGGAUAAACCAGCGGUGGGCACCAAAAAGGACCAAUGAGGAG}$

GCCCGCGCGGGGCCAGCCGAAGGGAUAACCAGCAAAAGAGCGGCAAAAAAGCAGGAAUACCACC
UAAAUGGAUCGGCAGGGAAAAACCCAGGCGCAGGGAUAACCAGCUAAGUGCAGCAAAAAGCAGG
GAAUACCACCAAAAAAGGAGCGCCACCCAAAAAAGGGAGCCGAAGGGAUUACCAGCAAAGAGCAGC
AAAGAGCAGGAAAAACCACCUAAAUGGAUCGCCAGCGAAUAAGCGAGGGAAAAACCACCACAGG
GAAAACCAGCAAUGAGCAGCAUAAAUGGAUCGCCAGCGGUGGACGCACAGG
GAAAACCAGCAAUGAGCAGCAUAAAGCAGGGAAUACCACCAUAUAGGAGUGGCAGGCCCCGGCG
CGGGC

GCGCCCGGGCCGCAGCACCACGAUAACGAGGAGAGACCACCAUGAAGGAGCAAAGAGCAGG
GAAUACCAGGUGCACGGAAAAAACCGACCGCCACGGAUAACGAGGAAUACCACCAAAAAAGGAGC
AAAGAGCAGGGAGAACCAGGCGGAGGCAAACCGCCACCGGCACGGAUAACGAGGAAAAACCAGC
AAAAAGCAGCAAAAGAGCAGGGAAUACCAGCCGGACGAAAAAACCGAGCCACCGGAUAGCGAGG
AGAAACCACCAUAAAAGGAGCGUGAAGCAGGGAAUACCAGGCGCAGGCAAACCGCCACCGCGACG
GAUAACGAGGGAAAAACCACCAAAAAAGGAGCAAAAGGAGCAAAAACCACGCGGAGCGCCCGGGCCCG
GGCGC

GCGGGGCCCGCGCGACGCCACCAAAAAGGAGGGUAAACCAGCAGAAAAGCACCAAAAAAGGAGG GAAAACCAGGCCGAGCCGGAUAGGCACAGCCACCGGAAAGGAGGGAUGACCAGCGAAAAGCACC GAAAAGGAGGGAAAACCAGGCUGAGCAAAAAAUGCACACCCAGCGGGGAGCAGGGAUGACCAAC

> 86 Methaqualone C16H14N2O Structural Representation

> 91 Thunderbolt

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AAAAAAACGCCAGCGCAGCCAGGCGAAGGCCACCCAAUAGGGAGCCAGAGAAAACUCAGC
{\tt AGGGAUAGAGCAGGAAACAGCGAGGCAGGGAACGAAAGGGAAAUCCCACGUAGGCUAAA}
GAAUACCCGGCACGCAGCUCAGAGGUCAGGCGAAAAAA
AAAAAAGGCCAGCGAGCCACGGAAAACCGACCCACCCAAUAGGGACGCAGCCAAAAGGCACC
GAGCCGGACCAAAAGGGAAAAAAGGCAGGCAUCGGCAACGACCAGUAAUGGGACGAAGGUCG
{\tt CCACCCAAACCCCAGGAAACAGCGAGCCACCCAGCCAUACGGAAAACCGGGGCAGCGAAU}
{\tt ACGCAGGCAGGCCUAAGCCAGGGAGACGCACGUCAGGCACCGGCCAAAAGGCCCCAAAAGGCAU}
> 87 Cat's Tov 2
> 88 Zigzag Semicircle
....(((((((((((....))).).).).)))))....
AAAACCCGGCCGGCGAACUAUCCAUGAGUCCGGGAAAA
AAAACUAGCCCGGCGAUCAUUCCAUGUGAGUUAGAAA
AAAAGGCCCCCGGCGAUAUUUCCAUGUGUGGGCCAAAA
AAAAGGCCCCCGGCGGUCGUCCCAUGAGUGGGCCAAAA
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CCCCGUGGCCGGCGUUAUCCCAUGAGACCACGCCCC
CCCCGCGCCCCGGCGACUAAUCCAUGAGUGGCGCCCCC
CCCCGGAGCCCGGCGACGUAUCCAUGAGAGCUCCCCCC
> 89 Short String 4
\dots ((.((..((..((..((..((..()))))..)..(.((..((...))..))..))..)))))
> 90 Gladius
((....))..(...(...)(...((...((...(((...(((...(((...(((...(((...(((...(((...(((...(((...((...((...((...((...((...((...((...((...((...((...((...((...((...((...((...())))...((...((...((...((...((...((...((...((...((...((...((...((...((...((...((...((...(...((...((...((...())))...((...((...((...((...((...((...((...((...())))...((...((...((...((...())))...((...((...((...((...((...())))...((...((...((...((...())))...((...((...((...())))...((...((...((...())))...((...((...((...())))...((...((...())))...((...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...((...())))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...())))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...())))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...()))...((...())))...((...()))...((...())))...((...())).
```

> 92 Mutated chicken feet

AUACAUAGGAGGAGCGAGAGCAGGAAACCAUACCCCAGGAGCAGCAAAAGCAGGAUACCAAAGC CCACGAGCAGCGAUAGCAGGAAACCAAAGCCGGAUAAGA

GAAAAAAGGAGGAGCAGAGCAGGAUACCAAACCCCAGGAGCAGCAAUAGCAGGAUACCAGAGC CCACGAGCAGCAAAAGCAGGAAACCAAAGCCGAGAAAAA

> 93 Chicken Tracks

AAAAAAAACCCGGGCCCCGAAAACGGGAAGCCGAAAACCGCAAGCCCAAAAGGGCCCCGGGAA

```
AAAAAAAACCGGCCCCGGGAAAACCCGAAGCGGAAAACCGCAACCGGAAAACCGGGGGCCCGGAA
AAAAAAACGCGCCCCCAAAAGGGGAACCGGAAAACCGGAAGCGCAAAAGCGCCGGCGAA
AAAAAAACGGGCCCCCGAAAACGGGAACCGCAAAAGCGGAACGGGAAAACCCGGGGCCCGAA
AAAAAAAAGCGCGGGGGGAAAACCGCAACCCCAAAAGGGGAACCCGAAAACGGGCCCGCGCAA
```

> 94 Looking Back Again

AAGGAGCCAUAGCGCCCCGAUGCCCCCGAAACGGGAACCCAGCGAGGACAAGGACAACAG CCACUUAUGUGGAGGGGACAGCGGCGAUUGCCAAUGGGUUAAAGCUAUCGGGACCCAC ACCCCAAAAGAGGCGCCCUAAAAAAAACGCGAUUAACGCGGGGCAAAGCCAGGGGGGAGAUAAUA CCAUAUCCGGUGGGAUAUAAGGCGGGAACCAGCCGCAAAGCGGCAAGCCGGGAAGCUCCGUGG GAAAGGG

CGGAACCCCCACAGAUGUACGGAUAUUCCGUGAGUGGAACGCCGGAACGGAAACCGCCGAGCGC
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CGGGGAGACCCGGAGAGGACGGCCGAUAGGCAUCGUCCCAAAAGCGGGCUCACGCGGA
GGGAAGAAAAGGCGCCCAAAAUAAAGAGCGUAAGGCUCGGGCAAAAGCCAUCCCGGCCGAAAAAC
CGCCGCGAAAACGCGGCAAAGCCAAGGCCGAAGGCCUAACCGGGGAAAAGCCCCCGCGA
AACCG

GCCAAGGGCGGAAAAACGGCGCAAAGCGCCGAAGCCGGUAAGCAACGUGCACCAGGGC CAAAGGGCGAUAGCCCAAGAGGCCCAAGGCAACCCAACGGAGCCAGAAGGGCCAAAAAGGCCCG AAAAAGGCGGCGCGGGACAAGGUCCCCCCCGAAACGGGGCCGUUGGACAUGGGGAGGG AGGCGGACACGCCAACACACGGACUGCGCGGAAUCGCAAGCCCGGAAAGCGCCUCCGAGCCGC ACCGCAAAAAAACCCCCGCAAAAAUAAGGCGAGAGACGCCGCGGAAAGGGAGCGGCAGGAAUAA GCCCCGGCAAAAAACCCCCGGAAAGCAGCAGCCGGAAUCCGGCAACCCGCGAAACCUGGCGCC AAGGGC

GCCAAGGGGGCAAAAAGGCCCAAAGGCCCCAGCCCGACGGGGAAGCCAAAGGCCCCACGCC GAAAGGCGAAAACGCCAAAACGGCGAACCGAACCCAAUCCGGGCAAUAACCGGCAAAAGCCGGG AAAAAGCCGUCCGGGGGAAACCCCCGCUCCUAAGGGGCUCUCUGCCAGGGACGACGACGACCA CCGUUAGUACGGGACAGGAGGGACAGGGGCCGUAGCCAACAGAGAAAACGGACCGGAAGCGCC AGCCGAAAAAAAGCGGCCCGAAAAAAAUAGGGAAGACCUAGGGCAUUCGCACGGCGGGGGAAGU AGCGCCGCGGAAACGCGGCAAUGCAGGCCCAAUGGGCCAACGGGCGAGACCCCGGCG CAAAGGC

```
> 95 Multilooping 6
```

 $AACCCGCGCGGGAAAACCGGCGGGCCAUAAGGCCCCGCGGGGGACAAAAGUCCCCCCGG\\ AAUCGGGGGCCGCGGGAA\\$

AACGCCCCCGGCGCAAAAGCGCCGGCGACGAUUCGCCGGGGGCGACGUAUUCGUCCGGGCCAAUAGGCCCGCCGCGCGAA

 $AAGCGCCGCGGGAAAACCCGCGGGGAAAACCCCGGGCCCAAAAGGGCCCCCGCA\\ AAAGCGGGGGGGGCGCAA\\$

AAGGCGCCCCGGGGAAUACCCCGAGGCGAAAUCGCCUGGGGCCCCCAAAAGGGCGGCGCAAAAGCCGCGCGCCCAA

 $AAGGCGCCCGGGGAAAACCCGCGGUCCCAGUGGACCGGGGCGACGGCAAAUGCCGUGGCACA\\ AAAGUGCCGCGCGCCAA\\$

> 96 Cesspool

> 97 Hoglafractal

GAGGCAACAUGCACACGUGCUUGGACCGGCACGCAUGGCCCUAAACCCAGAUAGGGUGGGCGC AAGGGAAAACCCCGCAGGGAAAAGCCAUAGGCCAUAAAAGGCCGGCUGGCAAGGCAAAAAGCCG CCGCAGCAAAAGCGCAGGGGAAAAAGGGUAAGCGAAAAAGCUCCCGGACCAAAUAGGCCCGCGCA

> 98 Bullseye

UGCUAACCGGAAAACGGAAAAGAAAGGCGGGAAACUCUCAAGCAGAAACUGCAAGCCCAAA GGGCGCCAAU

> 99 Shooting Star
((((((((((((((((((((((((((((((((((((
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).((((())))))))(((((((((((
> 100 Teslagon
$\dots ((\dots ((\cdot ((\cdot (\cdot (\cdot (\cdot (\cdot (\cdot (\cdot $
$\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ((\dots ($
(((()).)).))))