✓ **Congratulations! You passed!**
TO PASS 70% or higher

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Retake the assignment in **7h 58m**

GRADE
100%

Final Exam (Read Instructions First)

LATEST SUBMISSION GRADE

100%

1. Welcome to the final exam.   **1 / 1 point**

   If you haven't yet read the instructions, please exit the exam and read the Final Exam Instructions.

   Please run the following data set in the program(s) that you have written: dna2.fasta

   If you created your program(s) correctly, you will be able to answer the questions below.

   How many records are in the multi-FASTA file?

   ○ 34

   ○ 679

   ◉ 18

   ○ 22

   ✓ **Correct**

2. What is the length of the longest sequence in the file?   **1 / 1 point**

   ◉ 4894

   ○ 10457

   ○ 5341

   ○ 2341

   ✓ **Correct**

3. What is the length of the shortest sequence in the file?   **1 / 1 point**

   ◉ 115

   ○ 964

   ○ 78

   ○ 103

   ✓ **Correct**

4. What is the length of the longest ORF appearing in reading frame 2 of any of the sequences?   **1 / 1 point**

   ○ 1719

   ○ 1644

   ○ 1401

   ◉ 1458

   ✓ **Correct**

5. What is the starting position of the longest ORF in reading frame 3 in any of the sequences? The position should indicate the character number where the ORF begins. For instance, the following ORF: **1 / 1 point**

   > sequence1

   ATGCCCTAG

   starts at position 1.

   ◉ 636

   ○ 153

○ 758

○ 832

✓ **Correct**

6. What is the length of the longest ORF appearing in any sequence and in any forward reading frame?   `1 / 1 point`

○ 1560

◉ 2394

○ 1719

○ 1401

✓ **Correct**

7. What is the length of the longest forward ORF that appears in the sequence with the identifier gi|142022655|gb|EQ086233.1|16?   `1 / 1 point`

○ 1317

○ 1509

○ 1281

◉ 1644

✓ **Correct**

8. Find the most frequently occurring repeat of length 6 in all sequences. How many times does it occur in all?   `1 / 1 point`

◉ 153

○ 219

○ 1020

○ 47

✓ **Correct**

9. Find all repeats of length 12 in the input file. Let's use Max to specify the number of copies   `1 / 1 point`

   of the most frequent repeat of length 12. How many different 12-base sequences

   occur Max times?

○ 1

○ 10

◉ 4

○ 5

✓ **Correct**

10. Which one of the following repeats of length 7 has a maximum number of occurrences?   `1 / 1 point`

○ CATCGCC

◉ CGCGCCG

○ GCGGCCG

○ TGCGCGC

✓ **Correct**