

4. (20 points) Given

```
String text = "Why do fools fall in love?\nTo reproduce and outnumber us.";
```

Determine the result of each of the following expressions:

(a) `text.substring(0, 4);`

(b) `text.length();`

(c) `text.substring(8, 38/3);`

(d) `text.substring(5, 6) + text.substring(text.length()-3, text.length());`

5. (25 points) Write a console application that accepts the temperature in degrees Fahrenheit and displays the temperature in degrees Celsius.

The conversion from Fahrenheit to Celsius is: $C = \frac{5}{9}(F - 32)$



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6. (25 points) Write a GUI (uses JOptionPane for I/O) program that asks the user to enter two words. The program should then display the average length of the words.



Additional work area for any problem. Clearly identify to which problem the work on this page is related.



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