

Due Date: October 24, 2011 Monday

NAME:.....

Ali Sinan Sertöz

STUDENT NO:.....

Math 302 Complex Calculus II – Homework

1	2
10	10

Please do not write anything inside the above boxes!

Check that there are 2 questions on your booklet. Write your name on top of every page. Show your work in reasonable detail. A correct answer without proper or too much reasoning may not get any credit.

Q-1) Apply the contour integral method we studied to the evaluation of the sum

$$\sum_{n=0}^{\infty} \frac{1}{n^2 + n + 1},$$

and write the answer in decimal expansion with at least 8 digits after the decimal point.

Solution:

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Q-2) Apply the contour integral method we studied to the evaluation of the sum

$$\sum_{n=1}^{\infty} \frac{1}{n^4 + 4n^3 + 6n^2 + 4n},$$

and write the answer in decimal expansion with at least 8 digits after the decimal point.

Solution: