Course outline

Week0

variables

How to access the portal?

Introduction to complex

Important theorems in

Branch cuts of the square

complex variables

The inverse Laplace

Pole on a branch cut.

L shaped branch cut.

L shaped branch cut

Inverse Laplace Transform.

Inverse Laplace Transform.

Additional material or

corrections to lectures.

Summary of the total course.

Quiz : Week-4 Assessment

Week4 Assessment Solution

continued

root function

transform

Mentor

1 point

Unit 6 - The inverse Laplace transform

0

 $\pi/3$

 3π

0

 10π

 $\pi/10$

Score: 0

 $\sin(t/3)$

 $\cos(t/2)$

 $4\cos(t)$

Accepted Answers:

 $-\pi a^{-p}\cot(p\pi)$

No, the answer is incorrect.

No, the answer is incorrect.

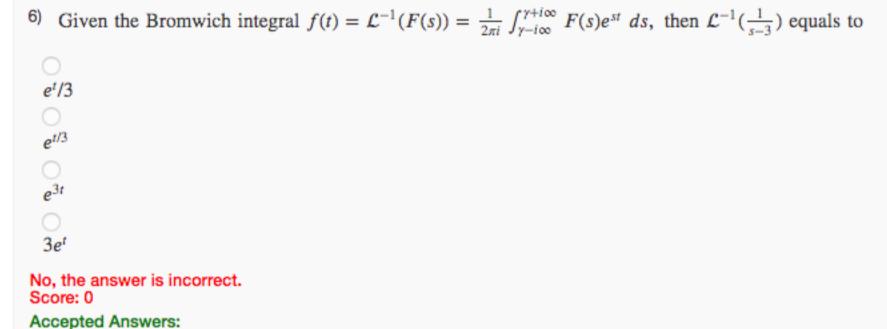
Accepted Answers:

5) The value of the integral $\int_0^{10} \frac{1}{\sqrt{x(10-x)}} dx$ equals to

Accepted Answers:

NPTEL » A short lecture series on contour integration in the complex plane

Week-4 Assessment Due on 2019-08-28, 23:59 IST. The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. 1) The value of the integral $\int_{-a}^{a} \frac{\sqrt{a^2-x^2}}{1+x^2} dx$ equals to 1 point $\pi(\sqrt{a^2+1}-1)$ $\pi(\sqrt{a+1}-1)$ $\pi(\sqrt{2a^2-1}-1)$ $\pi(\sqrt{2a-1}-1)$ No, the answer is incorrect. Score: 0 Accepted Answers: $\pi(\sqrt{a^2+1}-1)$ 2) The value of the integral $\int_{-1/a}^{1/a} \frac{\sqrt{1-a^2x^2}}{1+a^2x^2} dx$ equals to 1 point $\bigcap_{\pi(\sqrt{2}-a)}$ $\pi(a\sqrt{2}-1)$ $\mathop{\pi(\sqrt{2a}-1)}\limits_{}$ $\pi(\sqrt{2}-1)/a$ No, the answer is incorrect. Score: 0 Accepted Answers: $\pi(\sqrt{2}-1)/a$ 3) The value of the integral $\int_0^2 \frac{1}{\sqrt{x(2-x)}} dx$ equals to 1 point 0 $\pi/2$ 2π No, the answer is incorrect. Score: 0 Accepted Answers: 4) The value of the integral $\int_0^3 \frac{1}{\sqrt{x(3-x)}} dx$ equals to 1 point



7) Given the Bromwich integral $f(t) = \mathcal{L}^{-1}(F(s)) = \frac{1}{2\pi i} \int_{\gamma - i\infty}^{\gamma + i\infty} F(s)e^{st} ds$, then $\mathcal{L}^{-1}(\frac{3}{s^2 + 9})$ equals to

