

Date: _____
Start: _____
End: _____
Grader: _____

Math 31
Integral Gateway Test

Name: _____
ID #: _____
Section: _____
Instructor: _____

Find each of the indicated integrals. You need 6 out of 7 correct to pass (no partial credit). *Be careful when writing answers, since the graders have firm instructions to mark off for all errors, including missing parentheses! No calculators allowed.*

Time Limit: 20 minutes.

- $\int_0^1 (z^4 + 2z - 3) dz$

- $\int z \sin 8z dz$

- $\int_0^1 \frac{z^3}{\sqrt{9z^4 + 16}} dz$

THIS TEST IS CONTINUED ON THE BACK

- $\int ((\sin t)(\cos t) - \cos 2t) dt$

- $\int \frac{e^z}{\sqrt{15 + e^z}} dz$

- $\int_1^e \frac{(\ln x)^4}{4x} dx$

- $\int \frac{p}{3 - 4p^2} dp$